



1-1988

## 1987 Performance of Field Crop Varieties

University of Tennessee Agricultural Experiment Station

C. R. Graves

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### Recommended Citation

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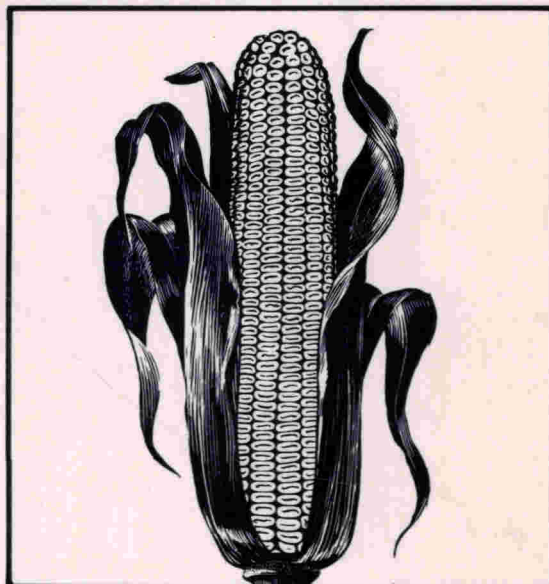
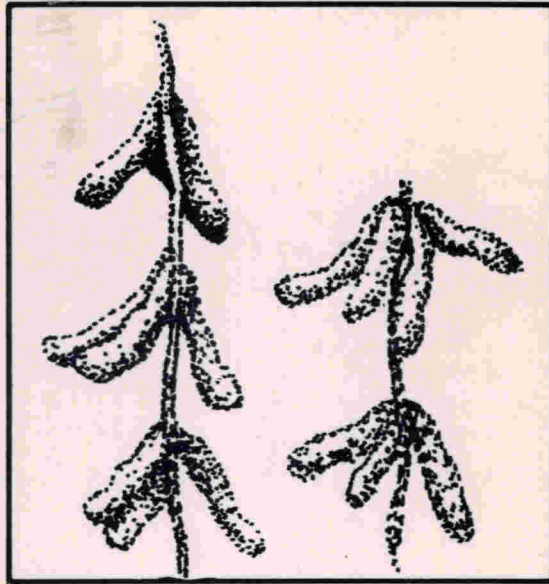
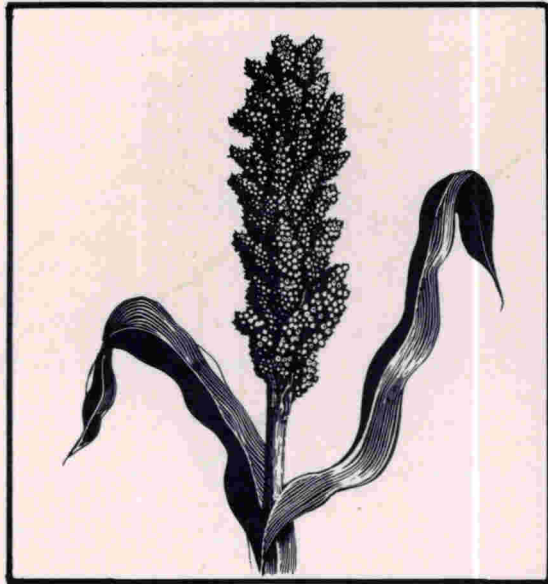
# 1987 Performance of *Field Crop Varieties*

C. R. Graves

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## RECOMMENDED CROP VARIETIES

### Listed Alphabetically

#### Corn Hybrids

Yellow-Early-Season: AgriPro HP555, Asgrow/O's Gold 2570, Asgrow/O's Gold 3344, Beck's 65X, DeKalb-Pfizer DK636, DeKalb-Pfizer DK656, FFR 788C, FFR 747C, Funk G-4522, McCurdy 7676, Pioneer brand 3389, Pioneer brand 3358<sup>1</sup>, Super Crost 5438, and USS 7001<sup>1</sup>.

Yellow-Medium-Season: Asgrow/O's Gold 5509, Beck's 85XA, Coker 21, DeKalb-Pfizer DK689, DeKalb-Pfizer DK748<sup>1</sup>, Funk RA1502, Funk G-4765, Funk G-4733, McCurdy 8150, McCurdy 84AA<sup>1</sup>, Pioneer brand 3320, Pioneer brand 3184<sup>1</sup>, SeedTec 2675, SeedTec 2686A, Stauffer 8500, Stauffer S7759, and Zimmerman z-27y.

Yellow-Full-Season: AgraTech GK900, AgraTech GK850, Cargill 8990, Cargill 980<sup>1</sup>, DeKalb-Pfizer DK789, Funk G-4868, Funk G-4858, McCurdy 8172, Pioneer brand 3165, Pioneer brand 3147, and Jacques 8400.

White-Full-Season: AgraTech GK927w<sup>1</sup>, Zimmerman z-14w, and Zimmerman z-11w<sup>1</sup>.

#### Cotton

Coker 208, DES 422, Deltapine 20, Deltapine 50, KC 380, McNair 220, McNair 235, Stoneville 506, Stoneville 825, and Tifcot 56.

#### Oats

Fall-seeded: Southern States 76-30, Coker 716, and Cumberland.

#### Wheat

Auburn, Caldwell, Coker 747, Coker 983, Coker 916, Fillmore, Massey, Pioneer brand 2550, Saluda, Scotty, and Tyler.

#### Barley

Henry and Volbar.

#### Alfalfa

Apollo, Armor, Cimarron, Classic, Gladiator, Hi-phy, Liberty, Olympic, Pioneer brand 532, Saranac AR, Voris A77, and Williamsburg.

#### Red Clover

Kenstar, Redland II, and Redman.

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<sup>1</sup>Present plans indicate that these varieties will not be recommended after this year.

## Recommended Soybean Varieties for 1988

Brand	Variety	Resistant to		Brand	Variety	Resistant to	
		Cyst Nematode Races	1/ Stem Canker Rating			Cyst Nematode Races	1/ Stem Canker Rating
		(3 or 4)	(0-5)			(3 or 4)	(0-5)
Medium Maturity Group V							
Asgrow	A5474	3,4	4.0	Pioneer	9561	3	---
Asgrow	A5980	3,4	4.0	Tenn.	TN 5-85	3	2.0
	Bedford	3,4	4.0	Va.	Bay	None	0.3
Coker	355 <sup>3/</sup>	3,4	4.0	Coker	425	None	3.2
Pioneer	9571	3,4	--- <sup>2/</sup>	Deltapine	105	None	4.0
Coker	485	3	2.5	Va.	Essex	None	2.3
	Forrest	3	4.2	FFR	561	None	0.2
Hartz	5171	3	4.5	FFR	562	None	0.2
Hartz	5252	3	4.1	Pioneer	5482	None	3.8
Hartz	5370	3	2.5	Coker	RA 502 <sup>3/</sup>	None	--- <sup>2/</sup>
Late and Very Late Maturity Groups VI & VII							
Asgrow	A6520 <sup>3/</sup>	3,4	3.0	Hartz	7126 <sup>3/</sup>	3	4.2
Asgrow	A6242	3,4	4.3	Yield King	593	3	4.8
	Leflore	3,4	--- <sup>2/</sup>	Yield King	613	3	3.5
HyPer.	Shiloh	3,4	0.0				
	Centennial	3	2.0	Coker	156 <sup>3/</sup>	None	--- <sup>2/</sup>
Coker	RA 604	3	4.8	Deltapine	566	None	1.7
Hartz	6383R <sup>3/</sup>	3	3.5	N.K.	S69-96 <sup>3/</sup>	None	4.7
Early Maturing Group IV							
Tenn.	TN 4-86	3,4	0.5	Pioneer	9471	None	1.5
Coker	RA 452	None	0.5	Mo.	Pershing	None	2.5

<sup>1/</sup>Ratings made by Albert Chambers Professor of Plant Pathology, West Tennessee Experiment Station, Jackson. Stem Canker ratings based on a scale of 0 through 5 with 0 = no disease and 5 = severe.

<sup>2/</sup>— space means variety was not included in the disease test due to various reasons.

<sup>3/</sup>Present plans indicate that this variety will not be recommended after 1988.

Grain Sorghum

Bird Resistant: DeKalb-Pfizer BR64 and Savanna 5.

Non-Bird Resistant: Asgrow/O's Gold GS 712, Chaparral, Coker 7675, DeKalb-Pfizer DK-64, DeKalb-Pfizer DK-42y, FFR 321DR, Funk G-1711, Funk G-522DR, HT-126DR, HyPerformer 1330DR, P.A.G. 5572, Paymaster R1090, Penngrain yE, Pioneer brand 8333, Pioneer brand 8300, Stauffer S9740y, Topaz, and T.E. Dinero.

Burley Tobacco

Clay 501, Co-op 313, Co-op 543, Ky 14, Ky 17, MS Bu. 21xKy 10, MS Ky 14xL8, R7-11, TN 86, and Va. 509.

Dark-Fire Cured Tobacco

Broad Leaf Madole, Black Mammoth, DF-300, DR 485, and DF-911.

Dark-Air Cured Tobacco

Ky 160 and OS 802.

Summer Annual recommendations are based on production when allowed to grow 20-40 inches before cutting or grazing.

Sorghum x Sudangrass crosses

DeKalb-Pfizer SX-17, DeKalb-Pfizer ST-6+, Funk HW 6986, Funk FP4, <sup>H</sup>aygrazer II, Summergrazer III, and Sordan 79.

Sudangrass

Trudan 8.

Millets

Gahi-1 and Millex 24.

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<sup>1</sup>Present plans indicate that these varieties will not be recommended after this year.

3 Year Average (1985-87)

Make yield comparisons only within a given maturity group because  
all maturity groups are not evaluated at the same locations.

Maturity Group	Grain Color	Brand	Hybrid	Tolerance <sup>2</sup> to Corn Virus Complex	Quality	Moisture	Yield	
					Rating	at Harvest		
					(1-9)	%	Bu/A	
Early	Yellow	Asgrow/O's Gold	2570	Low	2.8	20.1	147	
		AgriPro	HP555	Low	2.3	20.1	147	
		McCurdy	7676	Low	2.3	19.5	147	
		Pioneer	3389	Med-Low	2.2	18.8	146	
		DeKalb-Pfizer	DK636	Low	2.3	18.3	141	
		Super Crost	5438	Low	3.2	19.2	140	
		DeKalb-Pfizer	DK656	Low	2.7	19.0	138	
		Beck's	65X	Low	2.7	19.5	138	
		FFR	747C	Low	2.2	19.0	138	
		Asgrow/O's Gold	3344	Med-Low	2.5	18.9	137	
		Funk	G-4522	Low	2.7	19.6	136	
		USS	7001 <sup>1</sup>	Low	-	-	-	
		Pioneer	3358 <sup>1</sup>	Low	-	-	-	
		FFR	788C	Low	-	-	-	
		Medium	Yellow	DeKalb-Pfizer	DK689	Med-High	3.0	17.1
Zimmerman	z-27y			Low	2.8	16.0	149	
Stauffer	8500			Low	2.5	17.9	148	
Asgrow/O's Gold	5509			Low	3.3	18.5	145	
SeedTec	2686A			Low	3.7	18.2	145	
Beck's	85XA			Med	3.3	18.3	144	
Pioneer	3320			Low	2.5	17.0	144	
McCurdy	8150			Low	3.3	18.6	144	
Coker	21			Low	3.7	18.3	144	
Funk	RA1502			Low	3.0	17.3	144	
Funk	G-4765			Low	3.7	18.5	144	
Stauffer	S7759			Med-Low	3.5	16.0	141	
SeedTec	2675			Low	3.7	17.3	140	
Funk	G-4733			Med	2.5	18.8	137	
DeKalb-Pfizer	DK748 <sup>1</sup>			Low	-	-	-	
McCurdy	84AA <sup>1</sup>			Low	-	-	-	
Pioneer	3184 <sup>1</sup>			Med-Low	-	-	-	
Full	Yellow	Pioneer	3165	Low	2.6	20.8	136	
		Pioneer	3147	Med-High	3.5	20.5	124	
		Jacques	8400	Med	2.8	20.5	124	
		AgraTech	GK900	Med-High	2.6	20.5	121	
		Funk	G-4868	Med-Low	2.7	20.5	121	
		AgraTech	GK850	Low	3.5	19.9	120	
		McCurdy	8172	Med-Low	2.7	21.3	120	
		DeKalb-Pfizer	DK789	Med-High	3.0	21.7	119	
		Funk	G-4858	Med-Low	3.2	21.9	119	
		Cargill	8990	Low	2.7	21.2	118	
		Cargill	980 <sup>1</sup>	Low	-	-	-	
		White	Zimmerman	z-14w	Med-High	2.8	21.1	121
			Zimmerman	z-11w <sup>1</sup>	Med-High	2.4	22.6	116
			AgraTech	GK927w <sup>1</sup>	Low	-	-	-

<sup>1</sup> Present plans indicate that this hybrid will not be recommended after 1988.

<sup>2</sup> Hybrids rated lower than medium-high are not recommended under heavy virus conditions.

## GRAIN SORGHUM

## Bird-resistant varieties

DeKalb BR64: A medium-tall variety with an open type head. Medium in maturity. Anthracnose, MDMV (maize dwarf mosaic virus), and greenbug resistance with a brown pericarp.

Savanna 5: A tall variety with a tight head. Resistant to downy mildew and anthracnose. Brown pericarp and grain color.

## Non-bird resistant varieties

Asgrow/O's Gold GS 712: A tall variety with medium type heads. Red pericarp with a hetero-yellow endosperm. It is reported to be resistant to head smut and downy mildew. May lodge under some growing conditions that induce stalk rots.

Chaparral: A medium variety in plant height with medium-tight type heads. Red pericarp and hetero-yellow endosperm. Has resistance to head smut.

Coker 7675: A medium variety in plant height with tolerance to MDMV, anthracnose, downy mildew, head smut, and charcoal rot. Red pericarp and hetero-yellow endosperm.

DeKalb DK-64: A medium-tall variety. Resistant to MDMV, anthracnose, downy mildew, and rust. Red pericarp and hetero-yellow endosperm.

DeKalb-Pfizer DK-42y: A medium-tall variety with medium type heads. This variety has a yellow endosperm and yellow grain color. DK-42y has been a little erratic in yield. It has performed better at Milan and Martin than it has at Springfield. This variety is medium early in maturity.

FFR 321: A medium variety in plant height, maturity, and head type. Red pericarp with a hetero-yellow endosperm. It is reported to be resistant to anthracnose and downy mildew.

Funk G-1711: A medium-tall variety in plant height with medium-tight type heads. Red pericarp with hetero-yellow endosperm. Reported to be resistant to MDMV, head smut, greenbug, anthracnose, and downy mildew.

Funk G-522DR: A medium variety in plant height with resistance to MDMV, head smut, anthracnose, and downy mildew. Red pericarp and hetero-yellow endosperm.

HT-126DR: A medium variety in plant height and maturity. Resistant to anthracnose, MDMV, head smut, and downy mildew. Red pericarp with a hetero-yellow endosperm.

HyPerformer 1330DR: Tall with medium to open type head. Medium to late in maturity. Bronze pericarp with a hetero-yellow endosperm. Resistant to MDMV, head smut, and anthracnose.

Paymaster R-1090: Medium-tall variety with medium to open heads. Medium in maturity. Resistant to anthracnose. Red pericarp with yellow endosperm.



P.A.G. 5572: A medium-tall variety in plant height with medium-tight heads. Red pericarp with hetero-yellow endosperm. It is reported to be resistant to MDMV, head smut, and downy mildew.

Penngrain yE: Medium-tall and medium maturing variety with a brown pericarp and yellow endosperm.

Pioneer brand 8333: A medium variety in plant height with an open type head. has a yellow endosperm with bronze grain color. It is late maturing and has performed well at Milan under no-till and conventional seedbed.

Pioneer brand 8300: Medium-tall plant height with a medium-open type head. Has a yellow endosperm with yellow grain color and red pericarp. It is reported to have resistance to MDMV, head smut, anthracnose, and downy mildew.

Stauffer S9740y: Medium-tall plant height with a medium type head. Has a cream color endosperm with a yellow pericarp and cream colored grain. It is reported to have moderate resistance to MDMV.

T.E. Dinero: Medium-tall and medium maturing variety with resistance to MDMV, anthracnose, and downy mildew. Red pericarp and hetero-yellow endosperm.

Topaz: A medium variety in plant height and maturity. Resistant to head smut and downy mildew. Red pericarp with a hetero-yellow endosperm.

#### SOYBEANS

Asgrow A5474: Resistant to races 3 and 4 of soybean cyst nematodes with resistance to phytophthora root-rot, bacterial pustule, wildfire, and target spot. Has white flowers, tawny pubescence, and brown pod wall. Maturity similar to Forrest (Maturity Group V).<sup>1</sup>

Asgrow A5980: Has purple flowers, tawny pubescence, and seed with a black hila. Resistant to races 3 and 4 of the soybean cyst nematode. Maturity Group V.

Asgrow A6242: Has purple flowers, tawny pubescence, and seed with a black hila. A few inches shorter in plant height than Centennial and matures about 6 to 7 days earlier. Maturity Group VI. A6242 is resistant to races 3 and 4 of soybean cyst nematode.

Asgrow A6520: Has purple flowers, tawny pubescence, and seed with a black hila. Resistant to races 3 and 4 of the soybean cyst nematode. Maturity Group VI.

Bay: Has purple flowers, grey pubescence, and seed with buff hila. Resistant to bacterial pustule. Maturity Group V. Has shown resistance to stem canker.

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<sup>1</sup>Varieties have been divided into 10 maturity groups, 00 through VII. Varieties recommended in Tennessee are from groups IV, V, VI, and VII. Group IV is considered early, Group V early to medium, Group VI late, and Group VII late to very late. The later these varieties of Maturity Groups V, VI, and VII are planted, the less pronounced is the difference of maturity among varieties.

Bedford: First soybean variety with resistance to race 4 soybean cyst nematode. Released by the USDA and several cooperating states, including Tennessee. Resistant to races 4 and 3, and moderately resistant to root-knot nematodes. Has white flowers, tawny pubescence, and yellow seed with black hila. Maturity Group V.

Centennial: Matures (Maturity Group VI) about the same time as Pickett 71. Tall plants with tawny pubescence and purple flowers. Medium size seeds with yellow seed coat and black hila. Resistant to race 3 of the soybean cyst nematodes, the root-knot nematode (Meloidogyne incognita), the reniform nematode, and the phytophthora rot. Seems to be too late for the Cumberland Plateau.

Coker 156: Has white flowers, grey pubescence, and seed with a buff hila. Resistant to phytophthora rot resistance with no resistance to soybean cyst nematodes. Maturity Group VI.

Coker 425: Has purple flowers, tawny pubescence, and seed with a black hila. Similar to Essex in maturity, lodging resistance, and a few inches shorter in plant height. Has no resistance to soybean cyst nematode. Maturity Group V.

Coker 485: Has purple flowers, tawny pubescence, and seed with a black hila. It is reported to have resistance to stem canker, southern root knot nematode, phytophthora rot and race 3 of the soybean cyst nematode. Taller than Essex and about a week later in maturity (late Maturity Group V).

Coker RA 452: Has white flowers, grey pubescence, and seed with a buff hila. Has good resistance to stem canker with no resistance to soybean cyst nematodes. Maturity Group IV.

Coker 355: Has purple flowers, grey pubescence, and seed with a black hila. Similar to Coker 485 in maturity and a few days later than Forrest. Similar to Forrest in plant height and standing ability. Resistance to race 3 and 4 of the soybean cyst nematode. Late Maturity Group V.

Deltapine 566: Has purple flowers, tawny pubescence, and seed with a black hila. Has shown some tolerance to stem canker. Maturity Group VI.

Deltapine 105: Has purple flowers, grey pubescence, and seed with imperfect black hila. Tolerant to phytophthora root-rot and susceptible to soybean cyst nematodes. Has yielded well under soybean cyst nematode free conditions. Late Maturity Group V.

Essex: Early-maturing variety (Maturity Group V) which is short and stands well. Has purple flowers, grey pubescence, and a tawny pod wall. Has a high yield potential under good moisture conditions, but appears to be more sensitive to moisture stress than many of the other varieties evaluated. Has not performed well on fine-textured soils. Similar to Dare in seed size, quality, and shatter resistance.

FFR 561: Has white flower, grey pubescence, and seed with a buff hila. Has no resistance to soybean cyst nematodes. Maturity Group V. Has shown resistance to stem canker.

FFR 562: has purple flowers, grey pubescence, and seed with a buff hila. Has no resistance to soybean cyst nematode. In Chambers' trials, it has shown good resistance to stem canker. Maturity Group V.

Forrest: Selected from the cross Dyer x Bragg. Growth characteristics resemble Bragg (Maturity Group VII), but plants mature about three weeks earlier and a few days later than Dare (Maturity Group V). Resistant to root-knot and soybean cyst nematode race 3. Has good resistance to bacterial pustule, wildfire, target spot, and moderate resistance to phytophthora rot. Has white flowers and tawny pubescence. Seeds are yellow with a black hilum. Ideal pH range for Forrest is 6 to 6.5, and it has performed poorly on some soils at a pH of 7 or above.

Hartz 5171: Has white flowers, grey pubescence, and seed with a dark buff hila. Resistant to race 3 of the soybean cyst nematode. Maturity Group V.

Hartz 5252: Has purple flowers, tawny pubescence, and seed with a black hila. Resistant to race 3 of the soybean cyst nematode. Maturity Group V.

Hartz 6383R: Has purple flowers, grey pubescence, and seed with an imperfect black hila. Resistant to race 3 of soybean cyst nematode. Maturity Group VI.

Hartz 7126: Has purple flowers, tawny pubescence, and seed with a black hilum. Resistant to race 3 of the soybean cyst nematode. Maturity Group VII.

Hartz 5370: Has white flowers, tawny pubescence, and seed with a black hila. Taller in plant height than Forrest with a slight tendency to lodge. Reported to be resistant to phytophthora rot, root knot nematode *M. incognita*, bacterial pustule, and race 3 of the soybean cyst nematode. Mature on the late side of Maturity Group V.

Leflore: Has purple flowers, tawny pubescence, and seed with a black hila. Resistant to race 3 and 4 of the soybean cyst nematode. Leflore is reported to have field resistance to stem canker and aerial blight similar to Centennial. Maturity Group VI.

N.K. S69-96: Has purple flowers, grey pubescence, and seed with a buff hila. Has no resistance to soybean cyst nematodes. Maturity Group VI.

N.K. S72-60: Has purple flowers, tawny pubescence, and seed with a buff hila. Has no resistance to soybean cyst nematodes. Maturity Group VII. This variety has a tendency to lodge more than S69-96.

Pershing: Has white flowers, grey pubescence, and seed with a buff hila. This variety stands well but does not have any soybean cyst nematode resistance. Maturity Group IV.

Pioneer brand 9561: Has white flowers, tawny pubescence, and seed with a black hila. Resistant to race 3 of the soybean cyst nematodes. Maturity Group V.

Pioneer variety 5482: A few days later than Essex in maturity (Group V). Has white flowers and tawny pubescence with black hila. Susceptible to soybean cyst nematodes and phytophthora root-rot. This variety has produced high yields under soybean cyst nematode free conditions.

Pioneer brand 9571: Has white flowers, tawny pubescence, and seed with a black hila. It is reported to be tolerant to root knot nematode with resistance to race 3 and 4 of the soybean cyst nematode. Maturity Group V.

Pioneer brand 9471: Has white flowers, tawny pubescence, and seed with a black hila. Has no soybean cyst nematode resistance. Maturity Group IV.

RA 502: Has purple flowers, tawny pubescence, and seed with a black hila. Has no resistance to soybean cyst nematodes. Maturity Group V.

RA 604: Early Maturity Group VI. RA 604 has tawny pubescence with purple flowers. Resistant to race 3 soybean cyst nematode, wildfire, phytophthora, bacterial pustule, target leaf spot, downy mildew, and root-knot nematode.

Shiloh: Has white flowers, tawny pubescence, and seed with a black hila. Resistant to races 3 and 4 of the soybean cyst nematode. Has very good resistance to stem canker. Maturity Group VI.

TN 5-85: Has white flowers, grey pubescence, and seed with a buff hila. Resistant to race 3 of soybean cyst nematode. Maturity Group V.

TN 4-86: Has purple flowers and tawny pubescence. Resistant to races 3 and 4 of the soybean cyst nematode. Has good resistance to stem canker. Maturity Group IV.

Yield King 593: Has purple flowers, tawny pubescence, and seed with a black hila. Tall growth habit with maturity similar to Centennial. Maturity Group VI.

Yield King 613: Has purple flowers, tawny pubescence, and seed with a brown hila. Resistant to race 3 of the soybean cyst nematode. Maturity Group VI.

## OATS

### Fall-Seeded

Coker 716: Slightly superior to Coker 66-22 in winter-hardiness, yield, test weight, and lodging resistance. Will not stand as well as Cumberland. Has been evaluated in previous years as Coker 70-16. Reported to have excellent resistance to soil-borne mosaic. Has yielded well in the state variety trials for several years.

Cumberland: A short, stiff-strawed variety of medium-late maturity. Slightly more winter-hardy than Blount. Has good lodging resistance.

Southern States 76-30: About two days earlier than Cumberland in maturity and a few inches higher in plant height. It has out-yielded Cumberland and Coker 716 in the state variety test with standing ability similar to Coker 716.

## BARLEY

Henry: An awnletted variety released from Virginia Agricultural Experiment Station in 1975. Heads about the same time as Volbar, but matures about a week earlier. Very similar to Surry in maturity and test weight. Has averaged a few inches taller than Surry. Reported to be resistant to powdery mildew, leaf rust, and scald.

Volbar: A winter-hardy, six-rowed, tall, rough-awned variety with maturity similar to Harrison and Jefferson. Has yielded well in the state variety test and has resisted lodging. Has slight tolerance to barley yellow dwarf virus disease.

## SOFT RED WINTER WHEAT

Auburn: A high-yielding, late-maturing variety which is medium tall with good straw strength. Auburn has good resistance to powdery mildew, septoria leaf blotch, and leaf rust. Auburn has excellent milling and good baking quality. Auburn has the H6 gene which confers excellent resistance to biotype A and B of the Hessian fly. This variety is not resistant to all races of Hessian fly.

Caldwell: An early variety with excellent soft wheat milling and baking quality. Is reported to be moderately resistant to barley yellow dwarf virus, take-all root rot, and leaf rust. Has good resistance to septoria leaf blotch and powdery mildew. Has the H6 gene which confers resistance to the currently prevalent biotype B of Hessian fly. It is susceptible to other races of Hessian fly.

Coker 747: An early, white chaff variety with good winter-hardiness and resistance to lodging. Is a few inches shorter with a slight stiffer straw than Arthur. Is resistant to soil-borne mosaic and moderately resistant to leaf rust, stem rust, and powdery mildew. Not Hessian fly resistant.

Coker 916: A few days earlier than Coker 747. Is similar to Coker 747 in head type, lodging resistance and plant height. Has good resistance to leaf rust and powdery mildew. Not Hessian fly resistant.

Coker 983: A semi-dwarf which is a few inches shorter than Coker 747. Coker 983 stands well with good tolerance to most prevalent races of leaf rust and powdery mildew. Did not perform as well in 1986 as it did in 1985 and 1987.

Fillmore: A high-yielding, late-maturing variety with large heads and often fills 3 to 4 kernels per spikelet which suggested the name Fillmore. Fillmore has excellent milling and baking qualities. This variety is moderately resistant to the barley yellow dwarf virus and is resistant to septoria leaf blotch, leaf rust, and powdery mildew. It has the H6 gene which confers resistance to biotype B of Hessian fly. Not resistant to all races of Hessian fly.

Massey: This variety is white-chaffed, awnletted, midtall, and medium in maturity. It has good field tolerance to powdery mildew, stem rust, and some race of Hessian fly. It is susceptible to leaf rust. This variety has done well at Greeneville in the presence of barley yellow dwarf virus disease. Massey is a Virginia release.

Pioneer brand 2550: An early variety about two inches shorter than Pioneer brand S76. Test weight is good but slightly lower than S76. This variety has very good leaf rust resistance and average stem rust and powdery mildew resistance. It is reported to have some resistance to barley yellow dwarf virus disease but not as good as S76. Pioneer brand 2550 has resistance to Hessian fly races A, C, and F but is susceptible to other races.

Saluda: An awnletted variety with very short tip awns, is white-chaffed and medium-short in height. Spikes are short and compact and tend generally to have three seeds per spikelet. In Virginia, has shown moderate resistance to powdery mildew and leaf rust. It is moderately susceptible to spindle streak virus and is susceptible to stem rust and Hessian fly.

Scotty: This variety is beardless, midtall, and medium in maturity. Scotty has excellent resistance to powdery mildew and moderate resistance to leaf rust. It has some resistance to stem rust but is susceptible to several of the current races of Hessian fly.

Tyler: A high-yielding, tall, and medium to late maturing variety. Stems are white and are moderately stiff. Tyler has shown good resistance to mildew in the state variety test. Tyler is reported to be resistant to spindle streak mosaic virus, but is susceptible to leaf rust, stem rust, and Hessian fly. Milling and baking characteristics are good. For consistent high yields, Tyler should probably be treated with a fungicide if leaf rust is a problem, because it is very susceptible to this disease.

#### ALFALFA

Apollo: A winter-hardy variety with good recovery ability. Has high resistance to phytophthora root rot which is worse on poorly drained soil. In most cases, alfalfa would not be grown on these soils. However, alfalfa can be grown on poorly drained soils (such as Henry) if the surface water is controlled. Alfalfa cannot tolerate flooding for any period of time. Apollo has high resistance to bacterial wilt, but this disease has not been a problem in Tennessee.

Cimarron: Flowers range from purple to light blue with a low frequency of white and yellow. Reported to be resistant to pea aphid and has intermediate resistance to the spotted alfalfa aphid. Is similar to Arc and Team in resistance to the alfalfa weevil. Reported to have high resistance to anthracnose and bacterial wilt diseases, and moderate resistance to phytophthora root-rot, common leafspot, stem-phyllium leafspot, and sclerotinia crown and stem rot diseases.

Classic: Is resistant to bacterial wilt and has moderate resistance to phytophthora root-rot and the potato leafhopper. Has a low level of resistance to race 1 anthracnose.

Gladiator: Developed by Northrup, King & Co. and is wilt resistant and has some tolerance to alfalfa weevil and anthracnose. Has yielded well in the state variety trials for a number of years.

Liberty: Moderately winter-hardy. Tolerance to alfalfa weevil. Resistant to pea aphid and anthracnose disease. Developed from the same germplasm base as Team and Arc.

Olympic: Has resistance to bacterial wilt, anthracnose, and fusarium wilt and is susceptible to phytophthora root-rot.

Voris A77: Has resistance to anthracnose, bacterial wilt, and fusarium wilt. Has moderate yellowing and has performed well.

Saranac AR: Wilt and anthracnose resistant. The growth habit of this variety is the same as for Saranac. Seed supply may be limited in Tennessee.

Williamsburg: Developed from selections out of Kansas Common. It is susceptible to bacterial wilt. This variety has been a good producer and is well adapted over the state.

#### RED CLOVER

Kenstar: Related synthetics have been evaluated in Tennessee for several years. These synthetics were Ky Syn A-1 and A-2. Kenstar was carried as an experimental Ky Syn A-3. A-1 consisted of 20 clones, A-2 of 30 clones, and Kenstar contained 10 of the superior clones common to both A-1 and A-2. Similar to Kenland in resistance to anthracnose, powdery mildew, and general morphological appearance. Has persisted for three years in many tests when Kenland has been persistent for only one or two years.

Redland II: A synthetic variety similar to Redland in growth habit and persistence. Was selected from Redland after screening for resistance to pea aphid, northern and southern anthracnose, and powdery mildew.

Redman: Has been evaluated for several years. Has performed better than Kenland and slightly less than Kenstar. Reported to have good resistance to northern anthracnose and moderate resistance to powdery mildew.

#### BURLEY TOBACCO

Clay 501: A high-yielding, rapid growing, medium-early maturing variety. It is a stand-up type burley with big leaves.

Co-op 313: A high-yielding variety with medium-high resistance to black root rot and high resistance to mosaic, fusarium wilt, and wildfire. Has low resistance to black shank, and should not be planted on land known to have black shank present.

Co-op 543: A stand-up variety with moderate yield potential. Plants mature about the same time as Ky 14. Has medium-high resistance to black shank and medium resistance to black root rot.

Ky 14: A high-yielded variety which has medium resistance to black root rot and high resistance to fusarium wilt, wildfire, and mosaic. has also shown some resistance to Tobacco Vein Mottling Virus (TVMV). Is similar to Va 509 in number of days to flowering, plant height, and leaf number per plant.

Ky 17: A stand-up variety which produces reasonable yields of high quality leaf. Has medium-high resistance to black shank and high resistance to black root rot, mosaic, wildfire, and fusarium wilt.

MS Bu. 21 x Ky 10: A semi-dropping leaf hybrid which has high resistance to wildfire and mosaic, low resistance to black root rot, medium resistance to fusarium wilt, and no resistance to black shank. Yields about the same as Ky 10, but more than Burley 21. Has better quality than Ky 10, but not as good as Burley 21.

MS Ky 14 x I8: A high-yielding large leaf hybrid which has high resistance to wildfire and mosaic, medium-high resistance to black root rot, and medium resistance to fusarium wilt. Not recommended where black shank is known to be present.

R 7-11: A high-yielding, large leaf, medium-height burley. Has medium resistance to black root rot and mosaic. Has no resistance to black shank.

TN 86: A stand-up variety with high yield potential. Has high resistance to tobacco vein mottling virus and black root rot, medium-high resistance to tobacco etch virus and potato virus, and medium resistance to black shank. Matures about 10-14 days later than MS Ky 14 x I8. Should be topped at a manageable height since, under favorable conditions, it can grow tall.

Va 509: An upright-leaf variety which has medium resistance to black shank, high resistance to wildfire, low resistance to black root rot, and medium resistance to fusarium wilt. It was selected from a cross of Burley 37 x Burley 21. The general characteristics are intermediate between those of Burley 21 and Burley 37.

#### DARK FIRE-CURED TOBACCO

Broad Leaf Madole: A relatively high-yielding, high acre-value variety. Susceptible to mosaic and wildfire.

Black Mammoth: Leaf is somewhat darker and broader than Madole. Usually does not droop quite as much as Madole. Susceptible to mosaic and wildfire.

DF-300: Moderately resistant to black shank. Is a broad-leaved, open-growing tobacco, lighter green in color than Madole with plant growth similar to Madole. The cured tobacco is usually lighter brown in color than Madole. Is best adapted to the production of wrapping tobacco, but is capable of producing cutting or snuff tobacco.

DF-485: A dark fire-cured variety. Has high resistance to black root rot, wildfire, and mosaic virus and moderate resistance to black shank races "0" and "1". Closely resembles Black Mammoth, except has a longer, wider, and darker green leaf. Flowers the same as Madole, is taller and has fewer leaves than Madole, yet the leaf yield is the same.



DF-911: A multiple disease resistant dark fire-cured variety. Is resistant to black root rot, mosaic, and wildfire, but not to black shank. Compared very favorably with Madole in growth, yield, and quality, but is slightly darker in color. Growth habit and appearance are a little more open than Madole, especially at maturity, and the leaf attachment is more upright.

#### DARK AIR-CURED TOBACCO

Ky 160: A medium to large leaf, one-sucker variety. Leaves are dark green in color and fairly smooth. Resistant to tobacco mosaic.

OS-802: A one-sucker variety with medium resistance to black shank and high resistance to wildfire and tobacco mosaic. Is light green in color with an open growth habit and tends to have a smoother leaf surface than Ky 160.

1987

## PERFORMANCE OF FIELD CROP VARIETIES

Corn - Grain Sorghum - Summer Annuals - Oats  
Barley - Wheat - Alfalfa - Soybeans

DATA FOR 1987  
WITH SUMMARIES OF RESULTS FROM PREVIOUS YEARS

## INTRODUCTION

The purpose of the project, "Field Crop Variety Evaluation," is to test field crop varieties available to farmers of this and neighboring states, as well as the best experimental varieties being developed by experimental stations, other agencies, and private companies.

The tests were conducted using field plot designs, fertility levels, and experimental techniques that have been found suitable for each crop.

Committees composed of specialists from the research, resident instruction, and extension staffs of the University of Tennessee Institute of Agriculture study the performance data and determine varieties to be recommended.

For a variety to be recommended, it must yield well and have other characteristics suitable for Tennessee conditions.

## PRESENTATION OF DATA

The tests were conducted in each of the principal agricultural regions of the state where the specific crop is grown. Plots of each variety were replicated several times at each location. Locations of field tests are given in each table of data. An average of the performance of a variety across the area of adaptation and over a period of years is the best basis for evaluation.

The tables on the following pages have been prepared with the entries listed in order of performance, the highest-yielding entry being listed first.

The least significant difference (L.S.D.) values at the five percent level for the 1987 tests are shown at the bottom of each table. The yields of any two varieties being compared must differ by at least this amount in order for the varieties to be considered different in yielding ability. Also, coefficient of variation (C.V. %) values are shown at the bottom of each table. This value is a measure of the variability found within each experiment. At each location where tests were conducted in 1987, the soil types are reported at the end of the table.

## Performance of Corn Hybrids

The medium-season state corn hybrid tests were conducted at seven locations, the full-season at four, and the early-maturing hybrids at five locations. Corn yields at Greeneville were reduced due to severe drought during silking and tasseling. The yields in West Tennessee were good to excellent in 1987. The early-maturing yields were not reported for Crossville due to the variability in yields due to soil variability and dry weather.

All tests were over-planted and thinned to about 20,000 to 26,000 plants per acre. Population varied from location to location but the population was the same for all varieties at a given location. The reason for the variation from location was due to the changes in spacing between the rows, with the spacing within the row remaining the same. Most tests were conducted using thirty-six inches between rows, but at Milan the spacing between rows was thirty inches. The tests were fertilized with 150 pounds or more of nitrogen per acre. At least as much phosphorous and potassium were applied as recommended by soil test recommendation, sometimes more. The plot size for hand-harvested plots in most cases was two rows 11 feet long, and for mechanically harvested plots yields were obtained from two rows 25 to 30 feet in length. Plots were replicated four times. The corn hybrid studies at Jackson, Martin, and Milan were harvested with a picker-sheller and all other tests were harvested by hand in 1987.

Corn yields are expressed in bushels per acre, adjusted to 15.5 percent moisture. The percent grain moisture at harvest is presented to show the relative maturity of each hybrid.

The five leading medium-season hybrids in the regular test in 1987 were DeKalb-Pfizer DK689, Zimmerman z-27y, Pioneer brand 3295, Funk RA1502, Coker 21, and Pioneer brand 3147, a full-season hybrid included as a check hybrid. In the extra medium-season test, the highest producing hybrids were Zimmerman z-38, McCurdy 7800, T-E 6996, Pioneer brand 3320, and AgriPro HP771.

The five leading hybrids in the full-season test in 1987 were Pioneer brand 3165, Pioneer brand 3147, FFR Exp 14914, Tenn. Exp. T167XT85:210, and Pioneer brand 3144w.

The highest producing early-maturing hybrids in 1987 were AgriPro HP555, McCurdy 7676, Pfister 4470, Asgrow/O's Gold 2570, and Pioneer brand 3389.

Table 1. Corn: Yield of medium-season hybrids evaluated at six locations in 1987.

Color	Cross	Brand	Hybrid	Avg.	1	2	3	4	5	4
					Knox-ville	Spring-field	Spring Hill	Milan	Cross-ville	Martin
Bushels per Acre										
y	2X	DeKalb-Pfizer	DK689	147	131	166	136	219	89	142
y	2X	Pioneer	3147	145	136	184	128	189	90	145
y	2X	Zimmerman	z-27y	145	140	168	112	201	112	137
y	2X	Pioneer	3295	144	131	172	133	188	111	128
y	2X	Funk	RA1502	142	131	141	124	214	116	128
y	2X	Coker	21	142	133	165	114	207	94	137
y	2X	DeKalb-Pfizer	DK711	141	138	150	117	206	105	131
w	2X	Exp	T165xT167	141	133	175	129	172	102	132
		Asgrow/O's Gold	X8007	141	133	150	120	203	108	130
y	2X	Stauffer	8500	140	133	157	125	185	105	135
y	2X	Beck's	85XA	138	125	147	123	193	101	137
y	2X	SeedTec	2686A	137	131	145	117	201	106	124
y	2X	Funk	G-4666	137	126	151	127	188	99	130
y	2X	Stauffer	S7759	137	127	137	114	208	108	126
w	2X	Funk	G-6044w	136	128	144	120	194	109	124
y	2X	Asgrow/O's Gold	RX905	136	128	144	116	199	98	131
y	2X	Asgrow/O's Gold	5509	136	127	145	128	212	86	119
y	2X	Exp	B73xMol7	135	126	141	115	196	104	129
y	2X	SeedTec	2675	135	127	144	112	206	101	122
y	2X	Pioneer	3320	135	128	143	122	203	87	128
y	2X	Princeton	SX865	135	121	142	122	196	108	122
y	3X	Funk	G-4765	135	133	137	116	194	105	124
y	2X	Jacques	8250	134	151	141	123	161	101	127
y	2X	McCurdy	8150	133	119	151	103	207	94	127
y	2X	Jacques	8350	133	128	128	108	193	114	127
y	2X	Funk	G-4743	133	115	159	115	196	89	124
y	2X	N.K.	PX9581	132	130	128	119	198	101	118
y	2X	AgraTech	GK750	132	129	130	109	191	106	129
y	2X	Asgrow/O's Gold	XP9017	131	123	141	118	189	107	107
y	2X	Coker	8625	129	122	129	110	188	101	126
y	2X	N.K.	PX9540	129	119	141	105	185	97	126
w	2X	AgriGold	XA862w	129	111	147	115	180	93	127
y	2X	FFR	811C	129	116	133	109	194	98	123
y	2X	AgriGold	A6615	128	120	133	118	182	96	117
y	M2X	Funk	G-4733	128	116	144	109	183	89	126
y	2X	Sun Prairie	SP2750	127	121	134	109	182	101	114
y	2X	N.K.	PX9584	125	112	116	101	199	107	117
y	2X	Princeton	SX860	124	107	126	111	186	114	103
y	2X	McCurdy	7700	123	114	141	116	182	91	96
y	2X	FFR	815C	122	118	136	106	171	84	119
L.S.D. (.05)				7.4	15.5	18.8	14.5	19.3	19.4	14.4
C.V. %				9.6	8.8	9.2	8.9	7.1	13.8	8.2
Avg.				134.6	126.0	145.1	116.9	193.5	100.6	125.4

<sup>1</sup>Sequatchie silt loam (2% to 5% slopes).<sup>2</sup>Huntington silt loam (2% to 5% slopes).<sup>3</sup>Maury silt loam (2% to 5% slopes).<sup>4</sup>Falaya silt loam (2% to 5% slopes).<sup>5</sup>Hartsell's loam (2% to 5% slopes).

Table 2. Corn: Yield and other characteristics of medium-season hybrids evaluated at six locations in 1987.

Color	Cross	Brand	Hybrid	Avg.	Grain	Husk	Ear	Grain
				Yield	Quality	Cover	Ht.	Moisture
				Bu/A	Rating <sup>1</sup>	Rating <sup>1</sup>	In.	%
y	2X	DeKalb-Pfizer	DK689	147	3.0	3.5	54	16.3
y	2X	Pioneer	3147	145	4.5	4.2	58	16.6
y	2X	Zimmerman	z-27y	145	3.0	4.2	58	15.1
y	2X	Pioneer	3295	144	4.1	5.1	52	15.5
y	2X	Funk	RA1502	142	3.8	3.9	53	16.4
y	2X	Coker	21	142	4.1	3.9	56	17.0
y	2X	DeKalb-Pfizer	DK711	141	2.5	3.7	53	16.8
w	2X	Exp	T165xT167	141	3.0	2.1	57	17.4
		Asgrow/O's Gold	X8007	141	4.1	4.0	57	15.5
y	2X	Stauffer	8500	140	2.7	5.0	55	16.9
y	2X	Beck's	85XA	138	3.5	4.0	51	17.6
y	2X	SeedTec	2686A	137	3.2	2.8	54	17.6
y	2X	Funk	G-4666	137	3.1	3.0	53	15.7
y	2X	Stauffer	S7759	137	3.4	4.2	55	15.3
w	2X	Funk	G-6044w	136	2.7	3.5	54	18.6
y	2X	Asgrow/O's Gold	RX905	136	3.0	3.0	55	15.0
y	2X	Asgrow/O's Gold	5509	136	3.9	3.8	52	17.5
y	2X	Exp	B73xMol7	135	4.5	4.5	51	14.9
y	2X	SeedTec	2675	135	3.4	3.9	53	16.5
y	2X	Pioneer	3320	135	2.4	3.7	52	16.3
y	2X	Princeton	SX865	135	3.2	3.0	51	15.5
y	3X	Funk	G-4765	135	3.0	3.5	56	17.6
y	2X	Jacques	8250	134	3.5	3.9	55	15.9
y	2X	McCurdy	8150	133	3.9	3.2	59	17.5
y	2X	Jacques	8350	133	3.1	3.0	55	16.1
y	2X	Funk	G-4743	133	2.5	3.2	57	18.2
y	2X	N.K.	PX9581	132	3.4	3.8	53	16.6
y	2X	AgraTech	GK750	132	2.6	3.3	51	15.2
y	2X	Asgrow/O's Gold	XP9017	131	3.1	2.9	53	15.3
y	2X	Coker	8625	129	2.7	2.9	51	15.3
y	2X	N.K.	PX9540	129	2.9	3.4	48	15.5
w	2X	AgriGold	XA862w	129	2.9	2.7	56	18.4
y	2X	FFR	811C	129	4.2	4.9	52	15.5
y	2X	AgriGold	A6615	128	2.7	3.3	48	15.4
y	M2X	Funk	G-4733	128	2.9	3.3	52	18.2
y	2X	Sun Prairie	SP2750	127	2.5	3.4	50	15.2
y	2X	N.K.	PX9584	125	3.9	3.6	47	15.5
y	2X	Princeton	SX860	124	2.5	4.3	44	17.0
y	2X	McCurdy	7700	123	3.2	3.0	51	15.5
y	2X	FFR	815C	122	3.9	4.6	50	16.2

<sup>1</sup>Rating based on a scale of 1 through 9 with 1 being excellent and 9 poor.

Table 3. Corn: Yield of 32 extra medium-season hybrids evaluated at six locations in 1987.

Color	Cross	Brand	Hybrid	Avg.	1	2	3	4	5	4
					Knox-ville	Spring-field	Spring Hill	Milan	Cross-ville	Martin
Bushels per acre										
y	2X	Zimmerman	z-38	131	113	140	104	188	116	123
y	2X	McCurdy	7800	130	134	150	102	174	106	112
y	2X	T-E	6996	128	121	139	105	186	112	107
y	2X	Pioneer	3320	127	121	138	108	179	101	116
y	2X	AgriPro	HP771	126	121	144	102	176	104	110
y	3X	SeedTec	2695A	124	108	142	99	195	95	108
y	2X	Coker	3020	123	112	113	108	201	100	105
w	2X	Asgrow/O's Gold	RX956w	123	116	132	99	178	113	101
y	2X	Jacques	8210	123	113	125	98	171	124	107
y	2X	T-E	6994	123	123	124	99	166	120	106
y	2X	SeedTec	2601	122	107	132	101	169	109	116
y	M2X	Hy-Performer	X-9340	122	116	118	100	176	114	108
y	2X	Asgrow/O's Gold	X9237	122	118	125	102	168	110	108
y	2X	Coker	CX5059	121	122	121	100	163	107	113
w	2X	Asgrow/O's Gold	X9527w	121	106	160	110	154	87	109
y	2X	SeedTec	ST-7750	121	117	125	103	166	114	99
y	2X	Cargill	7877	121	112	119	95	179	120	99
y	2X	AgriPro	830	120	107	122	99	171	115	106
y	2X	SeedTec	ST-7680	120	109	116	103	170	119	100
y	M2X	Coker	8696	119	117	132	95	169	103	100
y	2X	Super Crost	5438	119	114	128	88	162	112	111
y	2X	Cargill	7993	118	108	118	100	168	110	103
y	2X	Deltapine	5750	117	112	122	102	164	108	96
y	2X	T-E	6995A	117	103	131	92	165	105	107
y	2X	Zimmerman	z-45	117	111	105	102	166	113	104
y	2X	Super Crost	5460	116	112	113	99	168	102	104
y	M2X	Hy-Performer	X-366	115	104	131	97	153	105	97
w	2X	Asgrow/O's Gold	6B4003w	114	103	111	92	182	99	98
y	2X	Cargill	8969	114	101	124	92	154	117	93
y	2X	FFR	810C	112	102	94	96	182	99	99
y	2X	Coker	CX5067	110	103	109	80	174	101	90
y	2X	Princeton	SX830	109	114	84	96	157	100	104
L.S.D. (.05)				10.6	16.5	26.2	14.8	25.8	15.5	17.3
C.V. %				12.2	10.5	14.9	10.6	10.7	10.2	11.8
Avg.				120.1	112.6	124.6	98.9	171.7	108.1	104.9

<sup>1</sup>Sequatchie silt loam (2% to 5% slopes).

<sup>2</sup>Huntington silt loam (2% to 5% slopes).

<sup>3</sup>Maury silt loam (2% to 5% slopes).

<sup>4</sup>Falaya silt loam (2% to 5% slopes).

<sup>5</sup>Hartsell's loam (2% to 5% slopes).

Table 4. Corn: Yield and other characteristics of 32 extra medium-season hybrids evaluated at six locations in 1987.

Color	Cross	Brand	Hybrid	Avg.	Grain	Husk	Ear	Grain
				Yield	Quality	Cover	Ht.	Moisture
				Bu/A	Rating <sup>1</sup>	Rating <sup>1</sup>	In.	%
y	2X	Zimmerman	z-38	131	2.6	3.8	43	15.9
y	2X	McCurdy	7800	130	3.0	4.4	50	16.0
y	2X	T-E	6996	128	2.9	4.8	52	16.6
y	2X	Pioneer	3320	127	2.6	3.3	51	16.1
y	2X	AgriPro	HF771	126	3.2	4.2	50	15.9
y	3X	SeedTec	2695A	124	4.1	3.3	53	16.4
y	2X	Coker	3020	123	3.4	3.4	50	16.0
w	2X	Asgrow/O's Gold	RX956w	123	3.0	3.2	50	17.4
y	2X	Jacques	8210	123	3.5	3.5	43	15.8
y	2X	T-E	6994	123	3.2	3.7	54	15.0
y	2X	SeedTec	2601	122	4.0	3.8	47	14.4
y	M2X	Hy-Performer	X-9340	122	3.4	2.7	49	15.2
y	2X	Asgrow/O's Gold	X9237	122	3.4	3.9	44	15.7
y	2X	Coker	CX5059	121	3.6	3.2	48	15.1
w	2X	Asgrow/O's Gold	X9527w	121	3.0	3.2	51	17.5
y	2X	SeedTec	ST-7750	121	3.9	3.0	54	15.0
y	2X	Cargill	7877	121	4.6	4.7	47	14.4
y	2X	AgriPro	830	120	4.1	4.3	53	14.9
y	2X	SeedTec	ST-7680	120	2.6	3.2	48	14.8
y	M2X	Coker	8696	119	2.9	3.4	54	16.4
y	2X	Super Crost	5438	119	3.1	4.2	51	14.8
y	2X	Cargill	7993	118	2.9	3.2	48	15.0
y	2X	Deltapine	5750	117	3.5	2.8	48	15.2
y	2X	T-E	6995A	117	3.6	3.9	52	14.1
y	2X	Zimmerman	z-45	117	3.0	2.6	48	15.5
y	2X	Super Crost	5460	116	2.6	3.1	48	14.6
y	M2X	Hy-Performer	X-366	115	2.9	3.8	51	14.9
w	2X	Asgrow/O's Gold	6B4003w	114	3.0	3.6	51	16.1
y	2X	Cargill	8969	114	3.6	3.8	51	15.8
y	2X	FFR	810C	112	3.5	3.3	48	14.6
y	2X	Coker	CX5067	110	4.0	4.5	44	15.6
y	2X	Princeton	SX830	109	2.6	2.5	48	15.6

<sup>1</sup>Rating based on a scale of 1 through 9 with 1 being excellent and 9 poor.

Table 5. Corn: Yield of medium-season hybrids evaluated at five locations for two years (1986-87).

Color	Cross	Brand	Hybrid	2 Yr. Avg.	Knox- ville	Spring- field	Spring Hill	Milan	Martin
Bushels per Acre									
y	2X	Pioneer	3147	149	150	179	103	167	147
y	2X	DeKalb-Pfizer	DK689	147	140	157	109	188	140
y	2X	DeKalb-Pfizer	DK711	145	149	158	100	188	133
y	2X	Stauffer	8500	142	143	155	102	172	140
y	2X	Zimmerman	z-27y	141	136	164	91	172	144
y	2X	Funk	G-4666 <sup>1</sup>	140	146	147	100	162	144
y	2X	SeedTec	2675	137	141	145	96	179	126
y	2X	Asgrow O's Gold	5509	137	139	146	96	188	118
y	2X	SeedTec	2686A	137	143	147	93	174	129
y	2X	Funk	RA1502	137	141	143	95	180	126
y	2X	Coker	21	137	142	147	87	180	129
y	2X	FFR	811C	136	128	145	96	180	131
y	2X	McCurdy	8150	136	133	146	90	182	130
y	2X	Pioneer	3320	136	134	143	97	173	131
y	2X	Stauffer	S7759	135	135	135	96	184	127
y	2X	Jacques	8350	134	146	134	99	171	123
y	3X	Funk	G-4765	134	147	135	93	172	125
w	2X	Funk	G-6044w	134	134	142	95	169	131
y	2X	AgraTech	GK750	134	137	136	95	171	131
y	2X	N.K.	PX9540	133	132	140	93	169	130
y	2X	Jacques	8250	133	147	143	99	149	127
y	2X	N.K.	PX9581	132	138	131	98	172	122
y	2X	Beck's	85XA	132	135	141	97	160	125
y	M2X	Funk	G-4733	131	137	142	89	164	125
y	2X	Coker	8625	130	136	124	94	167	129
y	2X	FFR	815C	124	125	134	86	155	122
L.S.D. (.05)				8.3	16.9	14.1	9.8	11.2	11.1
C.V. %				9.8	12.4	9.8	10.3	6.5	8.6
Avg.				136.3	138.7	144.5	95.5	173.1	129.6

<sup>1</sup> Evaluated in 1986 as Exp. 6066X with Entry No. 995 instead of 510 in 1987.



Table 6. Corn: Yield and other characteristics of medium-season hybrids evaluated at five locations for two years (1986-87).

Color	Cross	Brand	Hybrid	2 Yr.	Lodged Plants	Grain Quality	Husk Cover	Ear Ht.	Grain
				Avg. Yield					Moisture at Harvest
				Bu/A	%	Rating <sup>1</sup>	Rating <sup>1</sup>	In.	%
y	2X	Pioneer	3147	149	2.1	4.5	4.0	56	17.5
y	2X	DeKalb-Pfizer	DK689	147	1.0	2.7	3.2	54	16.5
y	2X	DeKalb-Pfizer	DK711	145	1.0	2.5	3.8	53	17.2
y	2X	Stauffer	8500	142	1.9	2.5	4.8	54	17.3
y	2X	Zimmerman	z-27y	141	2.2	3.0	4.0	56	15.4
y	2X	Funk	G-4666	140	1.0	3.1	3.0	53	15.7
y	2X	SeedTec	2675	137	4.2	3.2	3.5	52	16.8
y	2X	Asgrow O's Gold	5509	137	4.3	3.5	3.4	53	18.0
y	2X	SeedTec	2686A	137	2.0	3.0	2.7	54	18.2
y	2X	Funk	RA1502	137	4.3	3.6	3.6	51	16.8
y	2X	Coker	21	137	3.0	3.6	3.7	54	17.6
y	2X	FFR	811C	136	0.2	3.9	4.8	52	16.1
y	2X	McCurdy	8150	136	1.5	3.4	2.9	59	17.9
y	2X	Pioneer	3320	136	1.7	2.4	3.6	51	16.4
y	2X	Stauffer	S7759	135	0.6	3.5	4.3	54	15.5
y	2X	Jacques	8350	134	1.3	2.8	3.1	54	16.5
y	3X	Funk	G-4765	134	1.3	3.1	3.4	54	17.6
w	2X	Funk	G-6044w	134	3.9	3.0	3.2	53	19.0
y	2X	AgraTech	GK750	134	0.5	2.5	3.1	51	15.3
y	2X	N.K.	PX9540	133	1.2	2.8	3.3	49	15.5
y	2X	Jacques	8250	133	1.4	3.7	3.8	54	16.0
y	2X	N.K.	PX9581	132	2.7	3.1	3.6	52	16.8
y	2X	Beck's	85XA	132	0.3	3.3	3.4	51	17.7
y	M2X	Funk	G-4733	131	1.6	2.9	3.1	52	18.1
y	2X	Coker	8625	130	0.5	2.6	2.9	50	15.4
y	2X	FFR	815C	124	0.4	3.9	4.6	51	16.1
L.S.D. (.05)				8.3					
C.V. %				9.8					
Avg.				136.3					

<sup>1</sup>Rating based on a scale of 1 through 9 with 1 being excellent and 9 poor.

Table 7. Corn: Yield of medium-season hybrids evaluated at five locations for three years (1985-87).

Color	Cross	Brand	Hybrid	3 Yr. Avg.	Knox- ville	Spring Hill	Spring- field	Milan	Martin
Bushels per Acre									
y	2X	Pioneer	3147	154	152	111	180	175	151
y	2X	DeKalb-Pfizer	DK689	153	145	115	160	192	153
y	2X	Zimmerman	z-27y	149	139	102	165	185	156
y	2X	Stauffer	8500	148	142	109	160	180	150
y	2X	Asgrow/O's Gold	5509	145	141	99	156	197	130
y	2X	SeedTec	2686A	145	139	100	156	185	143
y	2X	Beck's	85XA	144	142	109	151	177	140
y	2X	Pioneer	3320	144	138	108	146	181	146
y	2X	McCurdy	8150	144	136	98	152	183	149
y	2X	Coker	21	144	143	95	155	187	138
y	2X	Funk	RA1502	144	142	102	147	185	142
y	3X	Funk	G-4765	143	143	104	149	180	138
y	2X	FFR	811C	142	131	100	146	192	143
y	2X	Stauffer	S7759	141	134	101	139	188	143
y	2X	SeedTec	2675	140	138	98	145	180	138
y	2X	N.K.	PX9581	138	137	102	138	180	134
y	2X	Funk	G-4733	137	137	98	150	169	133
y	2X	Coker	8625	137	136	99	133	170	148
y	2X	N.K.	PX9540	137	130	98	140	174	145
L.S.D. (.05)				4.9	12.0	8.1	11.4	10.6	11.4
C.V. %				9.5	10.6	9.8	9.4	7.2	9.8
Avg.				143.6	139.3	102.4	151.0	182.2	143.1

Table 8. Corn: Yield and other characteristics of medium-season hybrids evaluated for three years (1985-87).

Color	Cross	Brand	Hybrid	3 Yr.	Lodged	Grain	Husk	Ear	Grain
				Avg. Yield	Plants	Quality	Cover	Ht.	Moisture at Harvest
				Bu/A	%	Rating <sup>1</sup>	Rating <sup>1</sup>	In.	%
y	2X	Pioneer	3147	154	2.5	4.5	4.0	56	18.4
y	2X	DeKalb-Pfizer	DK689	153	0.7	2.8	3.2	54	17.1
y	2X	Zimmerman	z-27y	149	1.4	2.9	4.1	56	16.0
y	2X	Stauffer	8500	148	1.5	2.5	4.6	53	17.9
y	2X	Asgrow/O's Gold	5509	145	2.0	3.5	3.3	52	18.5
y	2X	SeedTec	2686A	145	1.6	3.2	3.1	54	18.2
y	2X	Beck's	85XA	144	0.3	3.3	3.3	51	18.3
y	2X	Pioneer	3320	144	0.9	2.4	3.5	52	17.0
y	2X	McCurdy	8150	144	1.4	3.4	3.0	59	18.6
y	2X	Coker	21	144	1.9	3.6	3.7	53	18.3
y	2X	Funk	RA1502	144	1.9	3.4	3.7	51	17.3
y	3X	Funk	G-4765	143	1.0	3.3	3.5	55	18.5
y	2X	FFR	811C	142	0.7	4.1	4.8	51	16.8
y	2X	Stauffer	S7759	141	0.5	3.5	4.3	54	16.0
y	2X	SeedTec	2675	140	2.0	3.4	3.3	51	17.3
y	2X	N.K.	PX9581	138	1.3	3.1	3.5	52	17.3
y	2X	Funk	G-4733	137	1.1	2.8	3.2	52	18.8
y	2X	Coker	8625	137	0.5	2.8	3.1	50	15.6
y	2X	N.K.	PX9540	137	0.8	2.6	3.4	49	15.8
L.S.D. (.05)				4.9					
C.V. %				9.5					
Avg.				143.6					

<sup>1</sup>Rating based on a scale of 1 through 9 with 1 being excellent and 9 poor.

Table 9. Corn: Yield of full-season hybrids evaluated at four locations in 1987.

Color	Cross	Brand	Hybrid	Avg.	1	2	3	4
					Ames Plantation	Knox- ville	Spring Hill	Jackson
Bushels per Acre								
y	2X	Pioneer	3165	139	117	134	118	188
y	2X	Pioneer	3147	131	100	127	110	186
w	2X	Exp.	T167xT85:210	130	97	133	108	184
y	2X	FFR	Exp 14914	127	111	120	115	162
w	2X	Pioneer	3144w	127	105	122	98	184
y	2X	Hystest	HI797	125	112	128	108	153
y	2X	Stauffer	S8645	125	111	129	101	158
y	3X	Cargill	9427	124	110	116	93	180
y	2X	AgraTech	GK850	124	117	116	106	158
w	2X	Zimmerman	z-16w	124	104	119	110	165
y	3X	Super Crost	5995	124	105	132	106	153
y	2X	Pioneer	3187	124	110	121	106	157
y	2X	McCurdy	8172	123	97	119	99	177
w	2X	Zimmerman	z-14w	122	107	118	99	164
y	2X	Jacques	8400	122	111	124	102	152
y	3X	Asgrow/O's Gold	6L45B02	122	106	121	106	155
w	M2X	Exp.	T85:210x(K55xC.I.66)	122	92	121	90	184
y	2X	Funk	G-4868	122	83	134	106	165
y	M2X	Sunbelt	1860	121	97	122	89	176
y	2X	DeKalb-Pfizer	DK789	121	93	122	104	164
y	2X	Cargill	8990	120	98	119	99	166
y	2X	AgraTech	GK900	120	100	117	113	152
w	2X	Exp.	T165xT167	120	90	119	108	161
w	M2X	Exp.	T165x(K55xC.I.66)	119	94	129	95	158
w	2X	Zimmerman	z-60w	119	100	125	105	144
w	2X	FFR	925w	119	100	127	96	152
y	M2X	Beck's	85MDM	118	104	118	99	153
y	2X	AgriGold	XA138	118	109	113	97	153
y	M3X	Funk	G-4858	117	106	122	102	137
y	2X	Asgrow/O's Gold	X9457	116	96	112	91	167
y	2X	Beck's	90XS	116	99	118	97	151
y	2X	Sun Prairie	SP5850	116	107	111	98	146
y	2X	Asgrow/O's Gold	X9787	115	89	104	105	163
w	3X	DeKalb-Pfizer	DK77w	115	87	108	91	176
w	2X	Zimmerman	z-11w	114	99	119	95	144
y	2X	AgriGold	XA876	112	105	117	98	128
w	2X	Princeton	SX933	108	80	110	85	158
y	2X	N.K.	PX95	105	98	101	82	140
L.S.D. (.05)				9.4	15.7	12.5	15.7	25.7
C.V. %				11.1	11.1	7.4	11.1	11.3
Avg.				120.7	101.2	120.2	100.8	160.8

<sup>1</sup>Loring silt loam (2% to 5% slopes).<sup>3</sup>Maury silt loam (2% to 5% slopes).<sup>2</sup>Sequatchie silt loam (2% to 5% slopes).<sup>4</sup>Lexington silt loam (2% to 5% slopes).

Table 10. Corn: Yield and other characteristics of full-season hybrids evaluated at four locations in 1987.

Color	Cross	Brand	Hybrid	Avg.	Grain	Husk	Ear	Grain
				Yield	Quality	Cover	Ht.	Moisture
				Bu/A	Rating <sup>1</sup>	Rating <sup>1</sup>	In.	%
y	2X	Pioneer	3165	139	2.7	3.8	47	17.6
y	2X	Pioneer	3147	131	5.0	4.3	51	15.8
w	2X	Exp.	T167xT85:210	130	3.2	2.8	52	18.3
y	2X	FFR	Exp 14914	127	3.2	4.3	51	16.2
w	2X	Pioneer	3144w	127	3.2	3.8	49	17.3
y	2X	Hyttest	HT797	125	3.2	3.7	51	17.5
y	2X	Stauffer	S8645	125	3.5	3.0	46	15.8
y	3X	Cargill	9427	124	3.5	3.7	48	16.3
y	2X	AgraTech	GK850	124	4.0	3.5	44	16.9
w	2X	Zimmerman	z-16w	124	2.7	3.2	46	18.8
y	3X	Super Crost	5995	124	3.2	3.3	48	16.2
y	2X	Pioneer	3187	124	2.5	3.5	49	16.2
y	2X	McCurdy	8172	123	2.7	3.7	50	17.4
w	2X	Zimmerman	z-14w	122	2.7	2.5	48	17.6
y	2X	Jacques	8400	122	2.7	4.3	46	16.8
y	3X	Asgrow/O's Gold	6L45B02	122	3.5	4.2	48	16.2
w	M2X	Exp.	T85:210x(K55xC.I.66)	122	3.0	2.5	53	20.7
y	2X	Funk	G-4868	122	3.2	2.8	49	19.0
y	M2X	Sunbelt	1860	121	3.8	3.3	49	19.7
y	2X	DeKalb-Pfizer	DK789	121	3.8	4.2	45	17.8
y	2X	Cargill	8990	120	3.5	3.3	47	17.9
y	2X	AgraTech	GK900	120	3.2	4.3	46	16.9
w	2X	Exp.	T165xT167	120	3.2	2.5	50	17.0
w	M2X	Exp.	T165x(K55xC.I.66)	119	3.0	2.8	47	19.1
w	2X	Zimmerman	z-60w	119	3.8	2.8	48	17.5
w	2X	FFR	925w	119	3.0	3.3	48	18.5
y	M2X	Beck's	85MDM	118	3.8	3.2	53	17.5
y	2X	AgriGold	XA138	118	4.0	5.2	45	16.1
y	M3X	Funk	G-4858	117	2.7	3.0	48	18.3
y	2X	Asgrow/O's Gold	X9457	116	3.0	3.2	39	17.8
y	2X	Beck's	90XS	116	3.5	4.2	35	18.0
y	2X	Sun Prairie	SP5850	116	4.0	4.8	48	16.4
y	2X	Asgrow/O's Gold	X9787	115	2.5	2.2	44	18.1
w	3X	DeKalb-Pfizer	DK77w	115	3.2	2.8	50	18.6
w	2X	Zimmerman	z-11w	114	3.0	2.5	54	18.6
y	2X	AgriGold	XA876	112	2.7	3.2	46	16.5
w	2X	Princeton	SX933	108	3.5	3.3	48	18.5
y	2X	N.K.	PX95	105	4.7	3.3	48	17.1

<sup>1</sup>Rating based on a scale of 1 through 9 with 1 being excellent and 9 poor.

Table 11. Corn: Yield of full-season hybrids evaluated at four locations for two years (1986-87).

Color	Cross	Brand	Hybrid	2 Yr. Avg.	Ames Plantation	Knox- ville	Spring Hill	Jackson
Bushels per Acre								
y	2X	Pioneer	3165	130	125	144	94	156
y	2X	Pioneer	3187	120	118	128	94	138
w	2X	Pioneer	3144w	119	124	124	86	144
y	2X	AgraTech	GK850	119	123	126	86	139
y	2X	Stauffer	S8645	118	117	129	92	132
y	2X	Pioneer	3147	117	116	122	87	141
y	2X	Jacques	8400	116	117	130	91	128
y	2X	McCurdy	8172	116	108	124	83	150
w	2X	Exp.	T165xT167	116	104	128	94	138
y	2X	AgraTech	GK900	116	115	124	94	131
w	2X	Zimmerman	z-14w	115	116	125	84	136
y	2X	Cargill	8990	114	111	121	83	142
w	2X	Zimmerman	z-60w	113	108	130	86	130
y	2X	DeKalb-Pfizer	DK789	112	107	129	84	130
y	2X	Sunbelt	1860	112	106	128	77	137
y	M3X	Funk	G-4868	112	96	139	80	132
w	2X	FFR	925w	111	109	129	78	128
y	M3X	Funk	G-4858	111	111	129	81	121
w	3X	DeKalb-Pfizer	DK77w	109	101	123	74	137
w	2X	Zimmerman	z-11w	106	113	122	74	116
y	2X	N.K.	PX95	102	108	109	68	124
y	2X	Princeton	SX933	101	92	112	72	129
L.S.D. (.05)				7.7	11.4	15.3	10.7	17.9
C.V. %				13.7	10.4	12.2	13.0	13.5
Avg.				113.9	111.2	126.3	83.7	134.4

Table 12. Corn: Yield and other characteristics of full-season hybrids evaluated at four locations for two years (1986-87).

Color	Cross	Brand	Hybrid	2 Yr.	Lodged	Grain	Husk	Ear	Grain
				Avg. Yield	Plants	Quality	Cover	Ht.	Moisture at Harvest
				Bu/A	%	Rating <sup>1</sup>	Rating <sup>1</sup>	In.	%
y	2X	Pioneer	3165	130	0.8	2.8	3.6	51	20.1
y	2X	Pioneer	3187	120	2.0	2.6	3.4	51	19.0
w	2X	Pioneer	3144w	119	2.0	3.4	3.9	54	19.7
y	2X	AgraTech	GK850	119	2.4	3.3	3.9	49	19.1
y	2X	Stauffer	S8645	118	1.5	3.8	3.1	50	18.0
y	2X	Pioneer	3147	117	3.0	4.9	4.1	52	19.1
y	2X	Jacques	8400	116	1.8	3.3	4.6	48	19.8
y	2X	McCurdy	8172	116	2.4	2.9	3.8	52	20.6
w	2X	Exp.	T165xT167	116	5.3	3.2	2.8	54	19.7
y	2X	AgraTech	GK900	116	1.8	3.7	4.4	50	19.8
w	2X	Zimmerman	z-14w	115	3.3	3.0	2.5	51	20.0
y	2X	Cargill	8990	114	4.4	3.6	3.3	50	20.4
w	2X	Zimmerman	z-60w	113	3.1	3.5	2.8	52	20.5
y	2X	DeKalb-Pfizer	DK789	112	3.1	3.8	3.9	49	20.2
y	2X	Sunbelt	1860	112	2.0	3.8	3.5	53	22.2
y	M3X	Funk	G-4868	112	1.8	3.4	2.7	53	23.7
w	2X	FFR	925w	111	2.8	3.3	2.9	53	20.7
y	M3X	Funk	G-4858	111	2.8	3.2	3.1	51	21.5
w	3X	DeKalb-Pfizer	DK77w	109	2.6	3.3	2.8	55	20.9
w	2X	Zimmerman	z-11w	106	3.3	3.4	2.7	55	22.1
y	2X	N.K.	PX95	102	6.0	4.0	3.4	53	20.0
y	2X	Princeton	SX933	101	4.6	3.6	3.5	51	21.7
L.S.D. (.05)				7.7					
C.V. %				13.7					
Avg.				113.9					

<sup>1</sup>Rating based on a scale of 1 through 9 with 1 being excellent and 9 poor.

Table 13. Corn: Yield of full-season hybrids evaluated at four locations for three years (1985-87).

Color	Cross	Brand	Hybrid	3 Yr. Avg.	Ames Plantation	Knox- ville	Spring Hill	Jackson
Bushels per Acre								
y	2X	Pioneer	3165	136	136	150	112	147
y	2X	Pioneer	3147	124	129	132	99	134
y	2X	Jacques	8400	122	125	137	100	125
w	2X	Exp.	T165xT167	121	116	135	103	131
w	2X	Zimmerman	z-14w	121	123	135	96	131
y	2X	AgraTech	GK900	121	119	134	104	127
y	2X	Funk	G-4868	121	114	142	99	128
y	2X	AgraTech	GK850	120	126	133	93	128
y	2X	McCurdy	8172	120	116	130	93	139
y	2X	DeKalb-Pfizer	DK789	119	118	136	99	123
y	M3X	Funk	G-4858	119	124	135	96	119
y	2X	Cargill	8990	118	118	132	92	131
w	2X	Zimmerman	z-60w	118	119	136	98	120
w	2X	Zimmerman	z-11w	116	126	133	92	113
w	3X	DeKalb-Pfizer	DK77w	114	110	130	89	129
L.S.D. (.05)				6.0	8.5	11.7	10.1	14.7
C.V. %				8.7	8.7	10.8	12.8	14.2
Avg.				121.4	121.4	135.3	97.6	128.3



Table 14. Corn: Yield and other characteristics of full-season hybrids evaluated for three years (1985-87).

Color	Cross	Brand	Hybrid	3 Yr.	Lodged	Grain	Husk	Ear	Grain
				Avg.	Plants	Quality	Cover	Ht.	Moisture
				Bu/A	%	Rating <sup>1</sup>	Rating <sup>1</sup>	In.	%
y	2X	Pioneer	3165	136	0.8	2.6	3.9	49	20.8
y	2X	Pioneer	3147	124	2.3	3.5	3.5	50	20.5
y	2X	Jacques	8400	122	2.1	2.8	4.6	46	20.5
w	2X	Exp.	T165xT167	121	3.0	3.5	3.0	52	20.1
w	2X	Zimmerman	z-14w	121	1.3	2.8	2.4	49	21.1
y	2X	AgraTech	GK900	121	0.6	2.6	4.5	44	20.5
y	2X	Funk	G-4868	121	1.3	2.7	3.5	52	24.4
y	2X	AgraTech	GK850	120	1.0	3.4	3.9	46	19.9
y	2X	McCurdy	8172	120	1.7	2.7	3.6	47	21.3
y	2X	DeKalb-Pfizer	DK789	119	2.1	3.0	4.2	49	21.7
y	M3X	Funk	G-4858	119	1.0	3.2	4.0	47	21.9
y	2X	Cargill	8990	118	1.3	2.7	3.8	47	21.2
w	2X	Zimmerman	z-60w	118	1.1	3.0	2.6	51	21.4
w	2X	Zimmerman	z-11w	116	3.6	2.4	2.7	51	22.6
w	3X	DeKalb-Pfizer	DK77w	114	2.2	3.5	2.5	52	22.0
L.S.D. (.05)				6.0					
C.V. %				8.7					
Avg.				121.4					

<sup>1</sup>Rating based on a scale of 1 through 9 with 1 being excellent and 9 poor.

Table 15. Corn: Yield of 30 early-maturing hybrids evaluated at four locations in 1987.

Color	Cross	Brand	Hybrid	Avg.	1	2	3	3
					Knox- ville	Ames Plantation	Milan	Martin
Bushels per Acre								
y	2X	AgriPro	HP555	149	139	129	191	135
y	2X	McCurdy	7676	145	133	131	200	118
y	2X	Pfister	4470	145	138	130	196	115
y	2X	Asgrow/O's Gold	2570	144	131	136	198	110
y	2X	Pioneer	3389	140	119	123	189	131
y	2X	N.K.	PX9646	139	128	118	200	109
y	2X	Pfister	4571	139	121	131	192	111
y	M2X	Funk	G-4522	138	130	115	188	119
y	2X	Pfister	4444	136	126	120	195	104
y	2X	Jacques	7820	136	121	116	187	120
y	2X	Funk	G-6064E	136	130	112	178	123
y	2X	Super Crost	5438	135	119	114	194	114
y	2X	Funk	G-4626	135	123	121	201	96
y	2X	Hyttest	HT650A	135	121	117	183	119
y	2X	Coker	8601	135	116	121	190	111
y	2X	Hyttest	712	134	121	108	180	125
y	2X	Funk	G-4543	134	122	111	184	117
y	2X	AgriPro	AP670	133	117	115	183	119
y	2X	DeKalb-Pfizer	DK656	133	127	105	194	106
y	2X	DeKalb-Pfizer	DK636	133	119	105	182	126
y	2X	Cargill	SX352	133	120	110	192	109
y	2X	Funk	G-6080E	133	120	110	191	110
y	2X	Beck's	65X	132	116	110	179	123
y	2X	Asgrow/O's Gold	XP7927	132	118	120	173	116
y	2X	Capehart	798	131	114	112	191	108
y	2X	FFR	747C	131	120	110	172	122
y	2X	Asgrow/O's Gold	3344	130	116	118	178	109
y	2X	Capehart	757	130	120	102	175	125
y	2X	Pioneer	3378	127	110	107	183	107
y	2X	Coker	8575	124	112	107	177	100
L.S.D. (.05)				8.3	12.2	13.6	16.1	20.2
C.V. %				8.8	7.1	8.3	6.1	12.5
Avg.				135.2	122.2	116.2	187.1	115.4

<sup>1</sup>Sequatchie silt loam (2% to 5% slopes).

<sup>2</sup>Loring silt loam (2% to 5% slopes).

<sup>3</sup>Falaya silt loam (2% to 5% slopes).

Table 16. Corn: Yield and other characteristics of 30 early-maturing hybrids evaluated at four locations in 1987.

Color	Cross	Brand	Hybrid	Avg.	Grain	Husk	Ear	Grain
				Yield	Quality	Cover	Ht.	Moisture
				Bu/A	Rating <sup>1</sup>	Rating <sup>1</sup>	In.	%
y	2X	AgriPro	HP555	149	3.0	2.7	57	16.3
y	2X	McCurdy	7676	145	3.5	3.5	54	15.8
y	2X	Pfister	4470	145	3.0	4.2	56	16.8
y	2X	Asgrow/O's Gold	2570	144	3.0	2.8	54	16.7
y	2X	Pioneer	3389	140	2.5	5.0	50	15.6
y	2X	N.K.	PX9646	139	3.5	4.8	50	17.9
y	2X	Pfister	4571	139	2.5	2.8	52	16.9
y	M2X	Funk	G-4522	138	3.5	3.3	47	16.1
y	2X	Pfister	4444	136	3.0	3.3	49	15.3
y	2X	Jacques	7820	136	2.5	3.0	48	15.9
y	2X	Funk	G-6064E	136	2.5	3.2	50	16.1
y	2X	Super Crost	5438	135	3.5	4.3	51	16.1
y	2X	Funk	G-4626	135	4.0	3.0	48	15.6
y	2X	Hyttest	HT650A	135	2.0	3.0	47	15.3
y	2X	Coker	8601	135	4.0	4.8	39	14.6
y	2X	Hyttest	712	134	3.0	2.8	51	14.9
y	2X	Funk	G-4543	134	2.0	3.2	51	15.8
y	2X	AgriPro	AP670	133	2.0	3.2	49	16.2
y	2X	DeKalb-Pfizer	DK656	133	3.5	4.5	50	15.6
y	2X	DeKalb-Pfizer	DK636	133	2.5	3.0	49	15.7
y	2X	Cargill	SX352	133	3.0	5.0	55	15.8
y	2X	Funk	G-6080E	133	3.0	2.8	51	15.6
y	2X	Beck's	65X	132	3.0	3.3	43	16.8
y	2X	Asgrow/O's Gold	XP7927	132	3.0	3.7	44	17.0
y	2X	Capehart	798	131	4.0	4.7	50	15.4
y	2X	FFR	747C	131	3.0	2.8	49	15.8
y	2X	Asgrow/O's Gold	3344	130	3.5	3.2	49	15.4
y	2X	Capehart	757	130	3.0	3.3	47	15.7
y	2X	Pioneer	3378	127	3.5	4.5	47	14.6
y	2X	Coker	8575	124	4.5	5.0	44	15.0

<sup>1</sup>Rating based on a scale of 1 through 9 with 1 being excellent and 9 poor.

Table 17. Corn: Yield of early-maturing hybrids evaluated at four locations for two years (1986-87).

Color	Cross	Brand	Hybrid	2 Yr. Avg.	Knox- ville	Ames Plantation	Milan	Martin
Bushels per Acre								
Y	2X	AgriPro	HP555	141	145	125	178	117
Y	2X	Asgrow/O's Gold	2570	141	139	132	182	110
Y	2X	Pioneer	3389	139	130	120	177	128
Y	2X	McCurdy	7676	139	139	131	176	110
Y	2X	DeKalb-Pfizer	DK636	135	126	115	169	129
Y	2X	Super Crost	5438	135	128	122	181	107
Y	2X	Asgrow/O's Gold	XP7927	134	137	114	170	115
Y	2X	DeKalb-Pfizer	DK656	134	132	114	182	107
Y	2X	Funk	G-4626	133	129	119	183	101
Y	2X	Funk	G-4522	132	130	112	176	111
Y	M2X	Beck's	65X	131	121	117	167	119
Y	2X	Asgrow/O's Gold	3344	131	124	114	169	115
Y	2X	FFR	747C	130	127	112	162	118
Y	2X	Pioneer	3378	130	120	113	174	111
Y	2X	Coker	8575	123	120	104	169	99
L.S.D. (.05)				6.6	12.9	11.8	11.6	13.7
C.V. %				10.0	10.0	10.1	6.7	12.2
Avg.				133.7	129.7	117.7	174.4	113.2

Table 18. Corn: Yield and other characteristics of early-maturing hybrids evaluated at four locations for two years (1986-87).

Color	Cross	Brand	Hybrid	2 Yr.	Grain	Husk	Ear	Grain
				Avg.	Quality	Cover	Ht.	Moisture
				Yield				at
				Bu/A	Rating <sup>1</sup>	Rating <sup>1</sup>	In.	Harvest
								%
y	2X	AgriPro	HP555	141	3.0	2.7	57	19.0
y	2X	Asgrow/O's Gold	2570	141	3.0	2.9	56	19.1
y	2X	Pioneer	3389	139	2.7	5.2	53	18.0
y	2X	McCurdy	7676	139	3.2	3.3	56	18.6
y	2X	DeKalb-Pfizer	DK636	135	2.5	3.0	51	17.4
y	2X	Super Crost	5438	135	3.2	4.4	53	18.4
y	2X	Asgrow/O's Gold	XP7927	134	3.2	3.4	47	18.2
y	2X	DeKalb-Pfizer	DK656	134	3.5	4.5	53	17.7
y	2X	Funk	G-4626	133	3.0	3.0	51	18.2
y	2X	Funk	G-4522	132	3.2	3.3	50	18.7
y	M2X	Beck's	65X	131	3.5	3.6	50	18.8
y	2X	Asgrow/O's Gold	3344	131	3.8	3.5	53	17.9
y	2X	FFR	747C	130	2.7	2.9	51	18.3
y	2X	Pioneer	3378	130	3.2	4.4	50	16.5
y	2X	Coker	8575	123	4.0	4.6	47	16.7
L.S.D. (.05)				6.6				
C.V. %				10.0				
Avg.				133.7				

<sup>1</sup>Rating based on a scale of 1 through 9 with 1 being excellent and 9 poor.

Table 19. Corn: Yield of 13 early-maturing hybrids evaluated at four locations for three years (1985-87).

Color Cross	Brand	Hybrid	3 Yr. Avg.	Ames Plantation	Knox- ville	Milan	Martin	
Bushels per Acre								
y	2X	Asgrow/O's Gold	2570	147	135	147	185	122
y	2X	AgriPro	HP555	147	129	155	183	123
y	2X	McCurdy	7676	147	133	146	180	127
y	2X	Pioneer	3389	146	127	135	182	142
y	2X	DeKalb-Pfizer	DK636	141	123	134	175	132
y	2X	Super Crost	5438	140	128	132	184	117
y	2X	DeKalb-Pfizer	DK656	138	116	137	187	113
y	2X	Pioneer	3378	138	120	130	176	127
y	2X	Beck's	65X	138	121	130	175	128
y	2X	FFR	747C	138	118	138	169	125
y	2X	Asgrow/O's Gold	3344	137	118	130	173	125
y	2X	Funk	G-4522	136	114	136	171	124
y	2X	Coker	8575	128	107	132	169	104
L.S.D. (.05)				6.7	9.2	9.9	9.9	21.0
C.V. %				11.9	9.3	8.9	6.9	20.0
Avg.				140.2	122.2	137.2	177.5	123.8

Table 20. Corn: Yield and other characteristics of 13 early-maturing hybrids evaluated for three years (1985-87).

Color	Cross	Brand	Hybrid	3 Yr.	Lodged	Grain	Husk	Ear	Grain
				Avg.	Plants	Quality	Cover	Ht.	Moisture
				Yield	%	Rating <sup>1</sup>	Rating <sup>1</sup>	In.	at
				Bu/A					Harvest
									%
y	2X	Asgrow/O's Gold	2570	147	1.6	2.8	3.2	54	20.1
y	2X	AgriPro	HP555	147	0.6	2.3	2.2	56	20.1
y	2X	McCurdy	7676	147	0.6	2.3	2.6	54	19.5
y	2X	Pioneer	3389	146	0.0	2.2	5.1	53	18.8
y	2X	DeKalb-Pfizer	DK636	141	0.2	2.3	2.7	49	18.3
y	2X	Super Crost	5438	140	0.2	3.2	4.5	53	19.2
y	2X	DeKalb-Pfizer	DK656	138	0.0	2.7	4.1	53	19.0
y	2X	Pioneer	3378	138	0.0	3.0	5.6	54	17.6
y	2X	Beck's	65X	138	0.8	2.7	4.5	52	19.5
y	2X	FFR	747C	138	0.2	2.2	2.2	49	19.0
y	2X	Asgrow/O's Gold	3344	137	1.0	2.5	3.0	51	18.9
y	2X	Funk	G-4522	136	0.6	2.7	3.8	47	19.6
y	2X	Coker	8575	128	0.2	2.8	4.7	46	18.0
L.S.D. (.05)				6.7					
C.V. %				11.9					
Avg.				140.2					

<sup>1</sup>Rating based on a scale of 1 through 9 with 1 being excellent and 9 poor.

Table 21. Corn: Yield and other characteristics of 38 extra hybrids evaluated at Knoxville in 1987.<sup>1</sup>

Color	Cross	Brand	Hybrid	Avg.	Grain	Husk	Ear	Grain
				Yield	Quality	Cover	Ht.	Moisture
				Bu/A	Rating <sup>2</sup>	Rating <sup>2</sup>	In.	%
y	2X	Pioneer	3147	148	4.0	3.0	50	20.2
y	2X	Garst	8315	147	2.5	3.5	55	17.1
y	2X	Pfister	3900	144	3.0	2.5	48	17.1
y	2X	Garst	8180	143	2.0	3.0	54	18.2
w	M2X	Pfister	4680w	141	3.0	3.5	62	21.6
y	2X	McCurdy	85-60	140	3.5	3.0	52	20.5
y	2X	Sun Prairie	SP3150	139	3.0	2.5	54	21.0
y	M2X	FFR Exp.	16049	138	3.5	2.5	54	18.9
		Deltapine	DPX4670	138	2.5	3.0	53	18.2
y	2X	Pioneer	3320	137	2.0	3.0	44	19.4
y	2X	FFR Exp.	1436309	135	2.5	2.5	47	20.0
y	2X	Beck's	85MDM	133	3.5	3.0	53	20.1
		Deltapine	DPX9686	132	3.5	3.0	56	18.0
w	2X	AgriGold	A6795w	131	3.0	3.5	49	22.0
		Deltapine	DPX8751	130	3.5	3.0	53	20.9
y	2X	FFR Exp.	12956	129	2.5	2.0	53	21.2
y	2X	Capehart	821	129	3.0	4.0	43	17.4
		Deltapine	DPX4151	128	2.0	2.5	47	17.0
y	M2X	FFR Exp.	15983	126	3.0	4.0	55	18.2
		Deltapine	DPX6650	126	2.0	3.5	45	17.2
y	2X	Capehart	825	126	3.5	3.5	46	20.4
		Deltapine	DPX7345	125	3.0	3.0	52	16.6
y	2X	AgraTech	888	125	2.5	3.0	48	18.3
y	M2X	FFR Exp.	15982	124	2.5	4.0	49	19.3
		Deltapine	DPX9986	124	2.5	3.0	49	21.2
y	2X	Super Crost	219	119	3.0	3.5	39	18.7
y	2x	Sun Belt	1802	118	3.0	4.0	49	20.9
w	2X	Sun Belt	6225	118	3.5	3.5	48	21.4
y	2X	Sun Prairie	SP3156	118	3.5	3.5	44	16.6
y	2X	Hy-Performer	X-8601	117	3.5	3.0	49	16.1
y	2X	N.K.	PX79	116	4.5	4.0	43	15.9
y	2X	Hy-Performer	X-956	115	3.0	3.0	46	20.3
y	2X	Garst	8344	115	2.0	2.0	46	17.4
y	2X	Cargill	7990	115	4.0	4.0	43	16.3
y	2X	FFR Exp.	14914	114	3.5	4.0	52	19.5
y	2X	FFR Exp.	40019	114	3.0	4.0	40	18.4
y	2X	Sun Prairie	SP3300	112	2.5	3.5	38	18.0
w		Asgrow	XP7935w	103	4.0	4.5	44	16.6

L.S.D. (.05)

17.1

C.V. %

9.6

Avg.

127.2

<sup>1</sup>Sequatchie silt loam (2% to 5% slopes).<sup>2</sup>Rating based on a scale of 1 through 9 with 1 being excellent and 9 poor.



Table 22. Performance of corn hybrids grown under virus disease conditions (MDMV-A/MCDV) at Knoxville in 1987.

Brand	Hybrid	Grain Yield	Grain Moisture	Stalk Lodging	Virus Diseased Plants	Virus Severity
		Bu/A	%	%	%	Rating <sup>1</sup>
Pioneer	3147	139.4	25.6	22.3	77.0	3.0
Jacques	8250	135.9	23.2	6.6	90.9	3.4
DeKalb-Pfizer	DK689	134.6	23.8	8.2	84.8	3.0
Coker	8696	132.6	23.6	7.4	88.2	3.1
FFR	Exp 14914	127.9	24.0	10.2	79.5	3.1
Funk	G-6080E	124.9	22.7	9.4	90.3	3.3
Pfister	4444	123.6	20.7	18.8	96.6	3.8
DeKalb-Pfizer	DK789	122.9	25.8	9.8	94.1	3.5
McCurdy	85-60	122.9	24.1	14.8	79.2	3.2
Beck's	85MDM	121.9	23.5	13.7	78.6	3.1
Hyttest	HT797	121.7	23.0	9.4	89.4	3.3
Pioneer	3187	121.1	24.4	7.0	90.7	3.3
Super Crost	5995	120.2	22.8	11.3	90.5	3.6
Hy-Performer	S-336	119.7	20.8	15.2	99.0	4.0
Jacques	8400	119.3	22.9	18.8	85.1	3.9
Zimmerman	z-60w	118.1	25.6	20.3	86.5	3.5
FFR	815C	116.0	22.7	6.3	95.5	4.1
Funk	G-4858	112.8	26.9	25.8	78.6	3.1
Funk	G-4868	112.7	28.2	28.1	86.8	3.6
Funk	G-4765	112.1	23.4	21.1	85.3	3.4
SeedTec	ST-7750	109.8	22.7	17.6	97.0	3.9
Zimmerman	z-14w	107.5	26.0	12.9	95.1	4.0
Funk	G-4666	107.5	22.1	12.9	97.7	4.0
FFR	Exp 12956	106.9	27.4	47.7	80.8	3.1
Stauffer	S8645	105.3	22.1	12.1	98.6	4.2
N.K.	PX79	104.3	20.6	10.5	96.4	3.9
Zimmerman	z-16w	104.1	26.7	22.7	89.8	3.7
FFR	Exp 16049	102.9	25.3	14.5	89.3	3.7
Hy-Performer	X-9340	102.8	21.8	14.5	99.0	4.3
Funk	G-4753	102.3	26.6	14.8	93.0	3.9
FFR	Exp 15983	102.0	22.4	9.4	96.1	4.3
Capehart	825	99.1	23.2	5.9	81.7	3.7
McCurdy	7700	99.0	21.9	11.3	100.0	4.3
FFR	Exp 14363	97.5	23.8	14.8	98.6	4.5
Zimmerman	z-11w	95.9	24.6	21.9	94.6	3.6
N.K.	PX95	95.0	24.4	20.7	94.8	3.7
Sunbelt	1860	93.1	28.0	22.3	96.7	4.2
Zimmerman	z-38	91.7	22.3	13.3	100.0	5.0
Zimmerman	z-27y	80.5	21.4	22.3	99.0	4.8
Princeton	SP933	74.1	25.1	23.0	100.0	5.2
DeKalb-Pfizer	DK77w	73.2	26.9	27.3	95.5	4.7
Zimmerman	z-45	59.7	21.8	26.2	98.0	5.5
(check)	T218 x T13	4.1	25.5	53.9	100.0	6.9
L.S.D (.05)		20.3	1.0	10.0	11.0	0.7
C.V. %		13.6	2.0	41.5	8.6	12.3
Avg.		106.5	24.0	17.1	91.6	3.9

<sup>1</sup> Virus severity rating scale = 1 to 9; where 1 = no virus symptoms and 9 = dead plants.

Table 23. Performance of corn hybrids grown under virus disease conditions (MDMV-A/MCDV) at Knoxville for two years (1986-87).<sup>1</sup>

Brand	Hybrid	Grain Yield	Grain Moisture	Virus Diseased Plants	Virus Severity
		Bu/A	%	%	Rating <sup>2</sup>
DeKalb-Pfizer	DK689	110	22.7	65	2.6
Jacques	8400	108	21.0	72	3.5
McCurdy	85-60	107	22.8	61	2.7
Pioneer	3147	105	24.1	59	2.6
Jacques	8250	104	21.9	73	3.1
FFR	815C	100	22.6	65	3.0
Beck's	85MDM	98	23.2	56	2.5
Coker	8696	94	22.5	61	2.5
Funk	G-4858	90	24.8	76	3.1
SeedTec	ST-7750	90	20.4	87	3.6
Zimmerman	z-60w	88	23.4	80	3.5
Stauffer	S8645	87	20.3	84	3.6
Funk	G-4868	85	27.1	76	3.3
N. K.	PX79	85	20.1	76	3.3
DeKalb-Pfizer	DK789	83	24.3	71	2.9
Pioneer	3187	82	22.7	79	3.0
Funk	G-4765	82	21.6	83	3.7
Sunbelt	1860	69	26.4	83	3.7
DeKalb-Pfizer	DK77w	64	24.8	94	4.5
Zimmerman	z-11w	60	23.6	86	3.9
Avg.		90	23.0	74	3.2

<sup>1</sup> This test was grown in an area heavily infested with johnsongrass to insure virus disease pressure. Yields are dependent on virus susceptibility and ability to compete with johnsongrass.

<sup>2</sup> Virus severity scale 1 to 9; where 1 = no virus symptoms and 9 = dead plants.

Table 24. Performance of corn hybrids grown under virus disease conditions (MDMV-A/MCDV) at Knoxville for three years (1985-87).<sup>1</sup>

Brand	Hybrid	Grain Yield	Grain Moisture	Virus Diseased Plants	Virus Severity
		Bu/A	%	%	Rating <sup>2</sup>
DeKalb-Pfizer	DK689	113	21.8	68	2.8
FFR	815C	105	21.7	69	3.2
Pioneer	3147	101	23.6	59	2.9
Beck's	85MDM	99	22.2	63	3.0
Jacques	8400	97	20.5	78	4.1
Funk	G-4858	94	24.2	78	3.5
Zimmerman	z-60w	93	22.5	82	3.8
DeKalb-Pfizer	DK789	87	23.9	74	3.2
Funk	G-4765	82	21.0	87	4.1
Zimmerman	z-11w	71	22.8	86	4.1
DeKalb-Pfizer	DK77w	66	23.9	95	4.9
Avg.		92	22.5	77	3.6

<sup>1</sup> This test was grown in an area heavily invested with johnsongrass to insure virus disease pressure. Yields are dependent on both virus susceptibility and ability to compete with johnsongrass.

<sup>2</sup> Virus severity scale of 1 to 9; where 1 = no virus symptoms and 9 = dead plants.

Virus data obtained in cooperation with D. R. Kincer and D. R. West.

## Performance of Small Grain Varieties

### Wheat

Twenty-eight soft red winter wheat varieties were evaluated at eight locations in 1987. Yields were good at most locations except at Knoxville where yields were reduced by dry weather during and after heading. The variety test at Milan was sprayed with a foliar fungicide treatment and little or no leaf disease was observed on any variety. With little or no disease and a favorable growing season in 1986-87, high yields were obtained at Milan. Little or no response to foliar fungicide treatment on wheat varieties was obtained at Knoxville, Spring Hill, and Jackson in 1986. In 1987, some varieties responded to fungicide treatment at Knoxville and Jackson. Little response of most varieties was observed at Spring Hill in 1987. 'Rust Stripe', a new wheat disease for Tennessee, was observed at Jackson. Ratings were taken for this disease and others at Jackson and will be reported in another publication.

Saluda, HW3021, Cardinal, EH8504 (experimental), Coker brand 9323, and HW3015 performed well at most locations in 1987. Tyler, HW3021, and Massey produced the highest ratings for leaf rust in 1987. Newton and NASW (EXP76-59) produced the highest ratings for mildew at Greeneville, Jackson, and Spring Hill. Little or no disease was noted at the other locations. Fillmore, Auburn, and other late-maturing varieties did not perform well in 1986 and 1987 due to early spring dry weather. Twain and Newton did not perform well at several locations.

Using a three-year average, the highest wheat grain yielders were Saluda, HW3015, HW3021, Coker 916, and Pioneer brand 2550. Coker 747 has performed well for the past two years. Tyler, Fillmore, and Auburn have not performed as well for the past two years due to spring dry weather. Most late-maturing varieties have not performed well for the past two years. The recommended wheat varieties for 1987-88 are Auburn, Caldwell, Coker 747, Coker 983, Coker 916, Fillmore, Massey, Pioneer brand 2550, Saluda, Scotty, and Tyler.

### Barley

Seven barley cultivars were evaluated at Knoxville and only four at the other locations. Pennco, Wysor, and Ray were not included at all locations because seed of these varieties were received late. At Knoxville, Pennco and Wysor performed well and will be evaluated at more locations in 1988. Anson and Volbar produced the highest average yield. Volbar and Henry produced high yields at Springfield. The recommended barley varieties for 1987-88 are Volbar and Henry.

### Fall Seeded Oats

All fall seeded oats winter-killed in 1984. In 1985, some winter-killing occurred but snow cover during severe cold reduced injury. At Greeneville in 1986, no yields were reported due to severe winter-killing for all varieties. In 1986, Jackson was the only location where little winter-injury occurred. In 1986, Madison winter-killed at all locations with yields being recorded for this variety at Jackson only. In 1987, little winter-killing occurred at most locations. At Knoxville, some winter-injury occurred with Cumberland being injured the most. The recommended oat varieties for 1987-88 are Southern States 76-30, Coker 716, and Cumberland.<sup>3</sup> Cumberland will not be recommended after this year if its performance does not improve in 1987-88.

### Spring Oats

No spring oats data are reported because the yields for all varieties were very low. These low yields were due to dry weather during the growing period.

### Rye

The rye yields were reduced by the dry spring weather, but the late spring snow reduced the yields the most by causing severe lodging.

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<sup>3</sup>Present plans indicate that this variety will not be recommended after 1987.

Table 25. Wheat: Yield of soft red winter wheat varieties evaluated at eight locations in 1987.

Brand	Variety	Avg.	1/ Greene- ville	1/ Knox- ville	2/ Spring- field	3/ Spring Hill	4/ Jackson	5/ Milan	6/ Cross- ville	7/ Martin
Bushels per acre										
	Saluda	61	63	58	56	75	71	80	20	68
	HW 3021	59	53	46	69	76	60	80	25	63
	Cardinal	58	55	45	64	72	61	73	25	66
	EH 8504	56	56	51	59	67	65	70	22	62
Coker	9323	56	55	50	55	64	66	71	23	61
	HW 3015	55	46	44	67	61	69	74	21	60
Coker	84-33	54	46	43	60	64	69	67	29	57
Pioneer	2550	54	59	48	60	63	52	69	19	62
Coker	747	54	52	50	55	67	55	70	22	59
	Caldwell	53	61	48	47	67	54	67	24	60
Coker	916	53	44	47	62	62	64	69	19	57
	Massey	52	47	44	64	54	52	72	25	63
Coker	983	52	54	49	59	57	56	68	17	56
	Scotty	52	48	49	52	61	53	71	24	58
NASW	Exp 76-59	52	47	47	55	62	54	66	28	56
	Compton	52	48	42	53	70	54	71	20	54
	Lincoln	51	44	43	58	62	54	71	24	57
Clemson	Exp 5011	51	45	45	61	54	54	63	21	63
Pioneer	2551	51	48	46	54	60	57	67	18	55
	Magnum	50	43	41	68	55	54	66	20	51
	Tyler	50	51	35	62	57	43	70	24	56
Coker	84-27	49	39	39	58	61	51	62	26	56
Coker	9227	49	44	36	57	43	70	63	21	55
	Nelson	48	42	42	51	49	54	63	22	58
	Fillmore	47	52	44	51	55	49	63	13	49
	Twain	47	38	33	57	60	42	63	20	61
	Auburn	44	49	45	42	58	46	55	16	38
	Newton	36	38	33	37	38	27	55	14	49
L.S.D.		3.4	6.8	5.4	7.6	12.1	9.8	8.0	4.8	9.1
C.V.		13.2	9.9	8.6	9.5	14.2	12.6	8.4	15.9	11.2
Avg.		51.6	48.7	44.4	56.9	60.5	55.5	67.9	21.4	57.5

1/Cumberland silt loam (2% to 5% slopes).

2/Dickson silt loam (2% to 5% slopes).

3/Maury silt loam (2% to 5% slopes).

4/Lexington silt loam (2% to 5% slopes).

5/Memphis silt loam (2% to 5% slopes).

6/Hartsell's loam (2% to 5% slopes).

7/Falaya-Henry silt loam (2% to 5% slopes).

Table 26. Wheat: Yield and other characteristics of soft red winter wheat varieties evaluated at eight locations in 1987.

Brand	Variety	YIELD	Date Headed	Date Mature	Plant Ht	LODG <sup>1</sup>	BUWT	Leaf <sup>2</sup> RUST	Mildew <sup>2</sup> Rating
		bu/A		in.	%			(0-5)	(0-5)
	Saluda	61	4-30	6-1	35	28	55.8	2.6	0.8
	HW 3021	59	5-1	6-2	40	22	50.6	5.0	1.1
	Cardinal	58	5-6	6-2	40	5	50.4	2.6	2.1
	EH 8504	56	4-30	6-3	37	8	55.2	1.4	0.1
Coker	9323	56	4-20	6-2	35	36	53.9	0.4	2.4
	HW 3014	55	4-29	6-2	40	19	52.7	1.6	1.7
Coker	84-33	54	4-29	6-3	39	28	55.4	0.1	0.0
Pioneer	2550	54	5-1	6-3	37	11	54.3	1.1	0.9
Coker	747	54	5-4	6-2	35	30	55.4	2.5	1.4
	Caldwell	53	5-1	6-1	37	16	54.6	0.8	1.7
Coker	916	53	5-1	6-1	34	29	55.0	0.4	0.7
	Massey	52	4-28	5-31	38	31	54.4	4.1	0.1
Coker	983	52	4-29	6-2	33	14	55.3	0.9	0.3
	Scotty	52	4-30	6-2	37	8	54.7	0.8	1.5
NASW	Exp 76-59	52	4-30	6-2	36	3	50.6	1.2	3.4
	Compton	52	4-30	6-1	36	6	57.1	0.0	2.0
	Lincoln	51	5-2	6-1	38	16	54.7	1.4	1.1
Clemson	Exp 5011	51	5-2	5-31	38	19	52.0	0.3	0.8
Pioneer	2551	51	5-1	6-2	35	12	51.9	2.2	0.4
	Magnum	50	5-1	6-2	34	9	55.5	3.5	0.9
	Tyler	50	4-29	5-31	40	11	50.1	5.0	1.6
Coker	84-27	49	5-3	6-2	36	46	50.3	0.0	0.2
Coker	9227	49	5-4	6-5	34	26	58.0	0.6	1.0
	Nelson	48	4-27	6-1	40	16	55.5	0.3	1.9
	Fillmore	47	4-27	6-1	40	18	47.1	0.1	0.8
	Twain	47	5-6	6-5	39	42	54.0	0.8	0.0
	Auburn	44	4-29	6-1	37	5	50.3	0.0	0.8
	Newton	36	5-6	6-4	36	28	52.9	3.1	2.9

1/ Only where lodging or disease occurred.

2/ Rating based on a scale of 0 to 5 with 0 being no-disease and 5 being severe.

Table 27. Wheat: Yields of soft red winter wheat varieties evaluated at six locations for two years (1986-87).

Brand	Variety	Yield	Greene- ville	Knox- ville	Spring- Hill	Spring- field	Jackson	Milan
Bushels per acre								
	Saluda	53	58	42	43	53	57	64
	HW 3021	52	53	37	53	54	50	66
	HW 3015	50	49	36	49	48	52	63
Pioneer	2550	48	53	38	44	48	46	59
Coker	747	48	51	40	45	47	47	56
Coker	9323	46	49	37	43	45	53	51
Coker	916	46	44	33	46	46	49	56
	Caldwell	45	52	38	37	48	43	
Pioneer	2551	44	42	35	38	47	48	55
	Scotty	44	49	37	40	42	44	54
	Tyler	44	49	28	46	43	41	57
	Compton	44	46	37	35	49	44	53
	Massey	44	46	30	46	40	43	57
	Fillmore	44	48	39	39	44	42	49
Coker	983	43	45	33	43	38	46	51
	Magnum	42	42	33	49	41	39	49
	Auburn	40	42	35	32	41	44	45
	Newton	33	37	26	29	29	32	44
L.S.D.		2.6	6.3	4.3	5.9	6.3	5.7	6.5
C.V.		15.5	13.3	12.3	14.2	14.2	12.7	12.0
Avg.		44.9	47.6	35.2	42.1	44.7	45.6	54.4



Table 28. Characteristics of soft red winter wheat varieties evaluated at six locations for two years (1986-87).

Brand	Variety	Yield	Date Headed	Date Mature	Plant Ht	LODG %	BUWT	Leaf <sup>1</sup> Rust	Mildew <sup>1</sup> Rating
		bu/A			in.	%		(0-5)	(0-5)
	Saluda	53	4-29	5-31	31	24.2	56.3	1.6	0.8
	HW 3021	52	4-29	6-1	36	19.1	52.7	3.6	1.1
	HW 3015	50	4-28	6-1	37	16.7	53.6	1.0	1.0
Pioneer	2550	48	5-1	6-2	34	10.2	55.0	0.7	1.1
Coker	747	48	4-29	6-1	32	25.8	56.4	1.8	1.3
Coker	9323	46	4-28	6-1	31	30.8	54.2	0.4	1.3
Coker	916	46	4-27	5-30	31	26.6	55.4	0.3	0.7
	Caldwell	45	4-29	5-31	34	14.2	54.1	0.4	1.4
Pioneer	2551	44	4-30	6-1	32	10.4	53.3	1.5	0.4
	Scotty	44	4-28	6-1	34	7.1	54.8	0.5	1.4
	Tyler	44	5-2	6-2	36	10.1	51.3	4.9	1.6
	Compton	44	4-40	5-31	33	5.5	56.3	0.0	1.4
	Massey	44	4-28	6-1	34	26.8	54.7	4.2	0.1
	Fillmore	44	5-5	6-5	38	15.9	48.6	0.1	0.5
Coker	983	43	4-29	6-2	30	12.1	55.3	0.7	0.2
	Magnum	42	4-27	5-30	31	7.7	55.0	2.3	1.1
	Auburn	40	5-5	6-4	34	4.5	51.8	0.0	0.9
	Newton	33	5-3	6-1	33	23.7	53.4	2.0	2.4

<sup>1</sup>/Rating based on a scale of 0 to 5 with 0 being no-disease and 5 being severe.

Table 29. Wheat: Yield of soft red winter wheat varieties evaluated at six locations for three years (1985-87).

Brand	Variety	Yield	Greene-ville	Knox-ville	Spring-field	Spring-Hill	Jackson	Milan
Bushels per acre								
	Saluda	52	63	45	44	50	58	56
	HW 3015	51	54	38	52	48	57	57
	HW 3021	50	54	38	53	51	49	54
Coker	916	48	55	34	47	46	51	56
Pioneer	2550	57	38	46	46	46	47	20
Coker	747	46	53	39	43	44	45	52
	Scotty	46	56	37	42	42	48	48
	Caldwell	45	54	38	41	47	45	44
Coker	983	45	52	35	45	41	49	45
	Compton	44	50	36	37	46	48	47
	Massey	44	51	32	48	41	45	49
	Magnum	44	52	33	47	41	45	45
	Tyler	43	54	31	49	43	37	45
	Fillmore	42	49	39	41	42	43	39
	Auburn	41	49	35	36	39	45	41
L.S.D. (.05)		2.4	5.3	3.6	5.2	5.4	4.9	6.4
C.V. %		15.1	12.3	12.3	14.3	15.1	12.8	16.5
Avg.		45.8	53.6	36.5	44.7	44.5	47.3	48.2

Table 30. Wheat: Yield and other characteristics of soft red winter wheat varieties evaluated at five locations for three years (1985-87).

Brand	Variety	Yield	Date Headed	Date Mature	Plant Ht	LODG	BUWT	Leaf Rust	Mildew Rating
		bu/A			in.	%	lb/bu	(0-5)	(0-5)
	Saluda	52	4-29	5-31	32	31.3	56.8	1.2	0.8
	HW 3015	51	4-28	6-1	36	19.6	54.6	1.0	1.9
	HW 3021	50	4-29	6-1	37	20.6	53.5	2.9	1.3
Coker	916	48	4-26	5-30	31	21.2	55.7	0.3	0.9
Pioneer	2550	47	5-1	6-2	34	21.5	55.4	1.0	1.1
Coker	747	46	4-29	5-31	32	30.7	56.6	2.0	2.0
	Scotty	46	4-29	6-1	34	11.9	55.4	0.4	0.8
	Caldwell	45	4-29	5-31	34	22.4	54.7	0.6	0.9
Coker	983	45	4-28	6-1	30	11.3	56.5	0.5	0.2
	Compton	44	4-30	5-31	33	19.6	56.9	0.0	1.5
	Massey	44	4-27	6-1	34	25.6	55.0	2.7	0.3
	Magnum	44	4-27	5-30	32	11.0	55.9	1.5	1.3
	Tyler	43	5-2	6-2	36	19.0	52.3	4.3	1.0
	Fillmore	42	5-5	6-5	38	22.5	50.8	0.4	0.5
	Auburn	41	5-4	6-4	34	9.2	53.7	0.0	1.1

Table 31. Barley: Yield of varieties evaluated at six locations in 1987.

Brand-Variety	Avg.	1/	1/	2/	3/	4/	5/
		Greene- ville	Knox- ville	Spring- field	Spring Hill	Jackson	Cross- ville
Bushels per acre							
Anson	78 <sup>6/</sup>	50	61	98	91	101	39
Volbar	77	60	63	105	86	89	44
Henry	72	55	61	101	78	87	34
Milton	68	51	51	98	69	90	32
Pennco	-	-	74	-	-	-	-
Wysor	-	-	70	-	-	-	-
Ray	-	-	53	-	-	-	-
L.S.D. (.05)	7.0	4.8	7.4	21.2	9.6	N.S.	9.6
C.V.%	15.7	8.5	8.2	13.2	11.6	12.9	16.2
Avg.	71.3	54.0	61.4	100.6	81.0	91.5	37.3

<sup>1/</sup>Decatur silt loam (2% to 5% slopes).

<sup>2/</sup>Dickson silt loam (2% to 5% slopes).

<sup>3/</sup>Maury silt loam (2% to 5% slopes).

<sup>4/</sup>Lexington silt loam (2% to 5% slopes).

<sup>5/</sup>Hartsell silt loam (2% to 5% slopes).

<sup>6/</sup>Knoxville data not included in average because all other locations included only four varieties.

Table 32. Barley: Yield and other characteristics of varieties evaluated at six locations in 1987.

Brand-Variety	Yield	Date	Date	Plant	Test	Lodging
		Headed	Mature	Ht	Weight	
	Bu/A			in.	lb/bu.	%
Anson	78	4-28	5-31	42	38.9	52
Volbar	77	4-27	5-31	43	42.9	44
Henry	72	4-27	5-28	37	40.7	45
Milton	68	4-28	5-29	38	42.0	38
Pennco	- <sup>1/</sup>	4-30	5-29	41	41.4	75
Wyson	-	4-27	5-28	41	42.0	45
Ray	-	5-1	6-1	45	46.3	54

<sup>1/</sup>Data from Knoxville only.

Table 33. Fall Seeded Oats: Yield of varieties evaluated at six locations in 1987.

Variety	Yield	1/	1/	2/	3/	4/	5/
		Greene-ville	Knox-ville	Spring Hill	Cross-ville	Spring-field	Jackson
Bushels per acre							
Brooks	80	81	52	118	70	77	115
Coker 227	78	70	46	114	81	--	142
Simpson	77	63	42	114	89	82	112
Madison	76	97	37	116	54	67	132
Coker 716	73	74	34	106	76	72	107
Citation	70	69	41	112	60	78	105
Cumberland	62	57	29	114	49	65	117
L.S.D. (.05)	7.2	15.5	10.8	5.5	20.5		23.5
C.V.%	13.8	14.3	18.2	9.2	20.1		11.2
Avg.	73.8	73.1	40.0	113.4	68.0		118.8

1/Decatur silt loam (2% to 5% slopes).

2/Maury silt loam (2% to 5% slopes).

3/Hartsells loam (2% to 5% slopes).

4/Dickson silt loam (2% to 5% slopes) not included in state average due to Coker 227 not being tested at this location in 1987.

5/Lexington silt loam (2% to 5% slopes). Jackson was not included in average yield because one replication was destroyed by road construction.

Table 34. Fall Seeded Oats: Yield and other characteristics of varieties evaluated at six locations in 1987.

Variety	Yield	Date	Date	Plant	Lodge	Buwt
		Headed	Mature	Ht		
	bu/A			in.	%	lb/Bu.
Brooks	80	4-38	6-2	35	62	25.9
Coker 227	78	4-38	6-2	33	79	28.4
Simpson	77	4-39	6-3	35	72	27.8
Madison	76	4-40	6-2	30	33	26.5
Coker 716	73	4-39	6-2	34	59	27.5
Citation	70	4-36	6-2	33	58	26.0
Cumberland	62	4-43	6-7	34	41	25.3
L.S.D. (.05)	7.2					

Table 35. Rye: Yield and other characteristics of varieties evaluated at Knoxville in 1987.<sup>1/</sup>

Variety	Yield		Date Headed	Date Mature	Plant Ht	Lodg.	BUWT
	Bu/A	T/A			in.	%	Bu/lbs.
Wyens abrucci	13	2.31	4-24	6-22	50	100	47.1
Maton	13	2.28	4-24	6-20	53	100	46.4
Wintergrazer 70	12	2.65	4-23	6-22	48	100	45.2
Elbon	12	2.57	4-22	6-20	50	100	45.8
NF 142	12	2.18	4-24	6-22	50	100	46.0
Wintermore	11	2.30	4-23	6-22	51	100	46.4
Bonel	11	2.43	4-25	6-19	50	100	45.5
NF 214	11	2.26	4-24	6-19	48	100	45.1
L.S.D.	2.7	0.24					
C.V.	15.2	7.2					
Avg.	12.1	2.37					

<sup>1/</sup>Decatur silt loam (2% to 5% slopes).

## Performance of Grain Sorghum Varieties

The grain sorghum variety tests were conducted at Spring Hill, Springfield, Milan, Martin, and Ames Plantation in 1987. These locations were selected because, in the past, birds had not been a severe problem. Some thirty-eight varieties in 1987 were evaluated at Martin and Ames Plantation. No data are reported for Martin in 1987 due to bird damage. The test at Spring Hill consisted of thirty varieties that were not evaluated at Martin and Ames Plantation. No data are reported for Spring Hill in 1986 or 1987 due to bird damage.

Fourteen varieties were evaluated at Springfield and Milan in 1987 with little or no bird damage. The Milan trials were conducted under no-till and conventional seedbed and will be reported later in another publication.

New locations must be selected to evade bird damage, and a bird control program should be practiced whenever possible to protect the grain from birds so that reliable information can be obtained.

Table 36. Grain Sorghum: Yield and other characteristics of varieties evaluated at Ames Plantation in 1987.<sup>1/</sup>

Brand	Variety	Avg.	Date	Plant	Grain
		Yield	Headed	Height	Moisture at Harvest
		Bu/A		in.	%
HyPerformer	1330DR	137	7-8	72	11.9
T.E.	Dinero	133	7-8	59	11.9
Coker	7737	132	7-8	64	12.1
DeKalb-Pfizer	DK-42y	132	7-8	62	12.1
N.K.	2660	130	7-8	60	11.9
FFR	321DR	128	7-10	59	12.0
HyPerformer	Cherokee	125	7-10	61	12.2
Funk G	522DR	125	7-10	59	12.0
Paymaster	1096y	123	7-10	69	12.0
Capehart	Challenger	118	7-8	65	11.8
Cargill	5572	118	7-8	61	11.9
Cargill	6670	118	7-8	63	11.7
FFR	421DR	117	7-8	61	11.7
DeKalb-Pfizer	M-565	115	7-9	59	11.9
Capehart	Champion	115	7-10	67	12.2
Paymaster	1022	114	7-5	62	12.0
Stauffer	734GR	113	7-5	60	12.0
Capehart	Contender	112	7-9	58	11.7
Pioneer	8226	112	7-8	60	12.2
HyPerformer	Wings	112	7-10	62	12.1
Funk G	1602	112	7-9	61	11.6
Capehart	Charger	111	7-14	63	12.4
Funk G	HW7380	111	7-8	57	11.8
Asgrow/O's Gold	Topaz	111	7-8	57	12.2
Coker	7675	111	7-8	58	12.0
Asgrow/O's Gold	Mustang	111	7-5	57	11.9
Asgrow/O's Gold	Opal	111	7-8	57	11.9
Stauffer	S9750	111	7-15	61	12.5
HyPerformer	1225DR	110	7-8	58	11.8
Asgrow/O's Gold	Chaparral	109	7-8	60	12.3
Funk G	1711	107	7-11	61	12.3
Pioneer	8333	107	7-5	57	12.4
Asgrow/O's Gold	GS712	106	7-9	60	11.9
FFR	331DR	105	7-10	71	12.2
Stauffer	S9740y	105	7-5	60	11.9
N.K.	Savanna 5	104	7-5	69	12.0
N.K.	2779	102	7-5	60	11.5
DeKalb-Pfizer	DK-64BR	101	7-10	69	12.7
L.S.D. (.05)		24.5			
C.V. %		15.2			
Avg.		115.2			

<sup>1/</sup> Loring silt loam (2% to 5% slopes).



Table 37. Grain Sorghum: Yield and other characteristics of varieties evaluated at Springfield in 1987.<sup>1/</sup>

Brand	Variety	Avg. Yield	Lodging	Head Exertion	Plant Height	Grain Moisture at Harvest
		Bu/A	%	in.	in.	%
Funk G	1711	39	5.0	2.7	44	9.7
Stauffer	S9750	35	36.7	2.7	46	8.8
DeKalb-Pfizer	DK-42y	32	0.0	6.0	44	9.7
T.E.	Dinero	32	43.3	3.0	42	9.5
FFR	321DR	32	43.3	4.7	44	9.1
Pioneer	8333	31	3.3	5.0	43	9.4
FFR	331DR	30	71.7	3.0	45	9.0
Asgrow/O's Gold	GS712	30	28.3	3.3	45	8.8
Funk G	522DR	29	28.3	4.3	42	9.5
Asgrow/O's Gold	Topaz	28	0.0	4.3	41	9.3
N.K.	2660	27	33.3	4.0	42	9.0
DeKalb-Pfizer	DK-64BR	27	0.0	6.0	48	9.1
Cargill	6670	25	10.0	3.0	45	9.2
HyPerformer	1330DR	21	20.0	4.3	51	9.2
L.S.D. (.05)		10.2				
C.V. %		23.8				
Avg.		30.0				

<sup>1/</sup>Dickson silt loam (2% to 5% slopes)

Performance of Summer Annuals  
(Sorghum X Sudangrass Crosses and Pearl Millets)

Nine summer annuals were evaluated at Spring Hill and eleven at Knoxville in 1987 for forage production. The plants were cut to a six-inch stubble when they reached 30 to 36 inches in height. The test at Knoxville was harvested three times by hand; the test at Spring Hill was cut four times with a forage chopper. All yields are reported as tons of oven dry forage. DeKalb-Pfizer ST-6E produced the highest average yields in 1987; however, there was no significant difference among yields at Knoxville. The yields at this location were low due to dry weather in late July and early August.

Table 38. Summer Annuals: Yield of varieties evaluated at Knoxville and Spring Hill in 1987.

Company	Variety	Avg.	Tons per acre	
			1/ Knoxville	2/ Spring Hill
DeKalb	ST-6E	3.66	4.00	3.31
FFR	202	3.40	3.90	2.89
T.E.	Haygrazer II	3.34	3.76	2.91
Mayo	M-Grazer	3.28	3.60	2.95
Pennington	Summergrazer III	3.20	3.50	2.89
DeKalb	SX-17	3.11	3.05	3.17
	Monarch V	3.11	3.36	2.86
Funk	G-FP4	3.05	3.37	2.73
FFR	107	3.01	3.33	2.69
	M-Grazer	---	3.76	----
	M-Grazer 85	---	3.28	----
L.S.D. (.05)			N.S.	0.35
C.V. %			18.9	8.5
Avg.			3.54	2.91

1/Etowah and Captina silt loam (2% to 5% slopes).

2/Maury silt loam (2% to 5% slopes).

Table 39. Summer Annuals: Yield of varieties evaluated at Knoxville and Spring Hill for three years (1985-87).

Variety	Avg.	Knoxville			Spring Hill		
		1987	1986	1985	1987	1986	1985
Tons per acre							
DeKalb-Pfizer SX-17	3.40	3.05	2.86	4.05	3.17	3.34	3.93
Haygrazer II	3.63	3.76	3.41	4.12	3.91	2.66	3.92
Funk FP4	3.23	3.37	3.00	3.65	2.73	2.73	3.89
M-Grazer	3.25	3.60	2.76	3.78	2.95	2.64	3.79

## Performance of Alfalfa

Alfalfa results are from tests grown at Spring Hill, Jackson, Knoxville, and Springfield. Data are reported from two tests at Knoxville, one seeded in the spring of 1983 and another in the fall of 1985. Thirty-seven varieties are being evaluated at this location. An outbreak of the spotted alfalfa aphid after the final harvest caused severe injury to some entries at Knoxville in 1987, especially some of the newer varieties that had been seeded in 1985. The older varieties seeded in 1983 were not injured as much as the newer varieties seeded in 1985. This insect injury is being monitored very closely and the final results will be reported later. The preliminary results indicate that in the trials seeded in 1985, Funk G-7808, WL 320, DeKalb 135, and Eagle were among the varieties that were injured the least. The yield results are presented in Tables 40 through 44. At Spring Hill there were several new varieties being evaluated for the first time in Tennessee. It takes several years to evaluate alfalfa varieties and usually there is very little difference among varieties in forage yields the first two or three years after seeding.

Table 40. Alfalfa: Yield of varieties seeded at Knoxville in the spring of 1983.<sup>1/</sup>

Brand	Variety	Avg.	1987	1986	1985	1984	1983
Tons per acre							
NAPB	Armor	4.24	5.90	3.57	5.08	5.32	1.36
Great Plains	Cimmaron	4.09	5.74	3.23	4.58	5.45	1.46
NAPB	Vanguard	4.08	5.25	3.42	4.86	5.44	1.45
	Voris A77	4.07	5.66	3.29	4.64	5.37	1.37
	Acclaim	4.04	5.73	2.54	5.01	5.53	1.32
	Olympic	4.01	5.55	3.13	4.56	5.46	1.31
NAPB	Apollo	4.01	5.74	3.24	4.64	5.16	1.29
FFR	Hi-Phy	3.91	5.81	2.85	4.44	5.11	1.31
FFR	Tempo	3.87	5.64	2.91	4.37	5.04	1.41
Public	Saranac AR	3.86	5.16	3.13	4.33	5.14	1.52
DeKalb	130	3.82	5.72	2.83	4.14	4.94	1.48
Funk	G-7808	3.82	5.18	3.03	4.54	5.11	1.25
FFR	Classic	3.81	5.15	2.98	4.53	5.16	1.26
Pioneer	555	3.82	5.27	3.17	4.44	4.91	1.30
Pioneer	532	3.74	5.03	2.94	4.45	5.17	1.10
Pioneer	524	3.69	5.69	2.76	3.97	4.84	1.20
FFR	Weevlchek	3.67	5.12	2.88	4.33	4.86	1.16
N.K.	Gladiator	3.66	5.38	2.96	4.24	4.48	1.23
Pioneer	531	3.65	4.96	2.88	4.26	5.02	1.14
Pioneer	526	3.63	5.34	2.62	4.20	4.82	1.18
L.S.D. (.05)			0.63	N.S.	0.48	0.44	N.S.
C.V. %			8.3	12.0	7.6	6.2	18.2
Avg.			5.44	3.12	4.40	5.12	1.30

<sup>1/</sup>Etowah silt loam (2% to 5% slopes).

Table 41. Alfalfa: Yield of varieties seeded at Knoxville  
Sept. 3, 1985.<sup>1/</sup>

Brand	Variety	Avg.	1987	1986
			Tons per acre	
	Shenandoah	3.52	3.66	3.52
	Milkmaker	3.52	3.76	3.28
	Raidor	3.52	3.78	3.27
	Mohawk	3.52	3.83	3.21
Funk	G-7808	3.50	3.73	3.28
WL	320	3.49	3.70	3.28
	Arrow	3.48	3.71	3.24
	Cimarron	3.46	3.58	3.35
	Liberty	3.44	3.53	3.36
	Dart	3.44	3.64	3.24
DeKalb	135	3.42	3.59	3.42
	N-17	3.40	3.56	3.23
	Husky	3.38	3.64	3.11
	Vancor	3.35	3.53	3.17
	Agate	3.35	3.66	3.04
	Pike	3.34	3.52	3.17
	Advantage	3.28	3.53	3.04
	Medistan	3.20	3.37	3.04
	Eagle	3.13	3.24	3.02
	Spreador II	2.76	3.28	2.24
L.S.D. (.05)			N.S.	.43
C.V. %			6.9	9.6
Avg.			3.58	3.16

<sup>1/</sup>Etowah silt loam (2% to 5% slopes).

Table 42. Alfalfa: Yield of varieties seeded at Springfield in 1984.<sup>1/</sup>

Brand	Variety	Avg.	1987	1986	1985
Tons per acre					
AgriPro	Dart	4.01	2.71	4.56	4.75
Voris	A77	3.96	2.47	4.62	4.78
Great Plains	Cimarron	3.89	2.48	4.55	4.63
	Armor	3.89	2.54	4.53	4.59
N.K.	Vancor	3.89	2.62	4.50	4.56
N.K.	Pike	3.87	2.47	4.40	4.75
Public	Mohawk	3.86	2.63	4.46	4.49
AgriPro	Arrow	3.85	2.52	4.56	4.46
	Acclaim	3.85	2.64	4.38	4.54
Great Plains	Shenandoah	3.80	2.47	4.44	4.49
DeKalb	130	3.78	2.40	4.35	4.57
N.K.	Raidor	3.73	2.26	4.36	4.58
AgriPro	N-7	3.74	2.60	4.31	4.30
Public	Liberty	3.64	2.05	4.44	4.44
AgriPro	Vanguard	3.60	2.37	4.22	4.22
Funk	G-7808	3.56	2.31	4.19	4.19
	Spreador II	3.19	1.92	3.87	3.78
L.S.D. (.05)			0.24	0.35	0.44
C.V.%			7.0	5.6	6.95
Avg.			2.48	4.39	4.48

<sup>1/</sup>Dickson silt loam (2% to 5% slopes).

Table 43. Alfalfa: Yield of varieties seeded at Spring Hill in the fall of 1986.<sup>1/</sup>

Brand	Variety	1987	Brand	Variety	1987
		Tons/A			Tons/A
Public	Liberty	3.35	N.K.	Vancor	3.04
Great Plains	Shenandoah	3.35	Pioneer	526	2.99
Asgrow	Eagle	3.31	Pioneer	5432	2.99
Great Plains	Cimmaron	3.29	N.K.	84634	2.93
AgriPro	Import	3.28	Lovelock	Husky	2.91
DeKalb	DK 135	3.24	Pioneer	532	2.91
Stanford	Lancaster	3.22	FFR	Amstar	2.90
Stanford	Medistan	3.14	AgriPro	Arrow	2.90
AgriPro	Dart	3.10	AgriPro	Apollo	2.90
Pioneer	531	3.10	AgriPro	Apollo II	2.88
FFR	Hi-Phy	3.10	WL	320	2.88
Lovelock	Milkmaker	3.06	N.K.	Raidor	2.84
Stanford	Mohawk	3.06	WL	Southern Special	2.83
L.S.D. (.05)		0.42			0.42
C.V.%		9.9			9.9
Avg.		3.05			3.05

<sup>1/</sup>Maury silt loam (2% to 5% slopes).



Table 44. Alfalfa: Yield of varieties seeded at Jackson in the fall of 1981.<sup>1/</sup>

Brand	Variety	Avg.	1987	1986	1985	1984	1983	1982
Tons per acre								
AgriPro	Apollo	5.48	4.80	4.86	6.24	5.73	4.88	6.38
Voris	Voris A77	5.36	4.29	4.44	6.55	5.71	4.55	6.66
DeKalb	130	5.34	4.63	4.81	6.56	5.62	4.63	5.78
Pioneer	532	5.27	4.85	4.62	6.28	5.60	4.69	5.55
AgriPro	Vanguard	5.25	4.42	4.26	6.47	5.85	4.38	6.12
Great Plains	Cimarron	5.24	4.97	4.36	6.32	5.57	4.33	5.90
FFR	Classic	5.23	4.47	4.21	6.26	5.47	4.41	6.57
Public	Agate	5.23	5.02	4.56	6.50	5.46	4.32	5.53
FFR	Weevlchek	5.22	4.29	4.46	6.09	5.54	4.89	6.09
FFR	Hi-Phy	5.18	4.85	4.68	6.01	5.24	4.42	5.86
FFR	Tempo	5.05	4.19	3.75	6.25	5.79	4.54	5.76
N.K.	Gladiator	5.04	4.62	3.65	6.25	5.47	4.31	5.90
Pioneer	524	5.02	3.99	3.92	6.28	5.39	4.53	6.00
AgriPro	Olympic	4.99	4.25	3.78	6.24	5.29	4.32	6.08
Public	Saranac AR	4.98	4.12	4.24	6.24	5.29	4.04	5.96
Public	Liberty	4.94	4.51	4.05	5.78	5.13	4.38	5.81
Public	Arc	4.93	4.35	4.04	5.90	5.14	4.37	5.78
N.K.	Spreador II	4.23	3.77	2.87	5.20	4.42	3.40	3.69
L.S.D. (.05)			0.48	0.55	0.64	0.50	0.47	0.55
C.V.%			7.6	9.3	7.3	6.9	7.6	6.4
Avg.			4.47	4.20	6.19	5.12	4.39	5.97

<sup>1/</sup>Grenada silt loam (2% to 5% slopes).

### Performance of Soybean Varieties

The soybean variety trials (Maturity Group V) were conducted at seven locations across the state in 1987 (Tables 45 and 46). No data from Springfield are reported for Maturity Group V because of missing plots resulting from animal injury. The yields were good at Knoxville, Martin, and Milan. Low yields were obtained at Greeneville, Spring Hill, and Ames Plantation due to dry weather during the flowering and pod filling periods.

The leading medium-maturing varieties (Maturity Group V) in 1987 were Deltapine 415, Deltapine 105, Coker 485, FFR 562, and N.K. S53-34. Using a three-year average, the five highest-yielding varieties were Coker 485, FFR 561, Deltapine 105, FFR 562, and Essex.

Thirty-four late-maturing (Maturity Group VI & VII) varieties were evaluated at four locations in 1987 (Tables 51 and 52). Asgrow A6785, Coker RA 606, Yield King 593, Yield King 613, and Winner were the leading late-maturing varieties in 1987. Deltapine 417 did not perform well at most locations.

Early-maturing varieties (Maturity Group IV) were evaluated at five locations in 1987 (Tables 57 and 58). The five leading varieties in yield using the average across all locations were Asgrow A4906, Pioneer brand 9442, Coker RA 452, Pennyrile, and Pershing. TN 4-86 performed well at Milan, Ames Plantation, and Knoxville, but was next to last in average yield at Crossville. Pershing and Coker RA 452 have performed well for several years with good resistance to lodging; however, both varieties are on the late side of Maturity Group IV.

At Jackson, forty-seven soybean strains were evaluated in 1987. Seventeen were in Maturity Group V, nine in Maturity Group IV, and twelve in Maturity Group VI or later.

In 1987, Lawrence D. Young evaluated several soybean varieties at Jackson in the greenhouse during the summer for susceptibility to soybean cyst nematodes (Tables 66 to 68). The rating was based on a scale of 0, 1, 2, 3, and 4, with 4 being most severe. A mean severity rating was obtained by multiplying the rating times the number of plants with that rating divided by the total number of plants.

Example 1:

8 plants with a rating of 4 each =  $8 \times 4 = 32/8 = 4.0$  mean severity index

Example 2:

(3 plants x 2 rating = 6) + (2 plants x 1 rating = 2) + (3 plants x 0 rating = 0) =  
 $6 + 2 + 0 = 8$  divided by 8 total plants = 1.0 mean severity index.

Table 45. Soybeans: Yield of varieties (Maturity Group V) evaluated at six locations in 1987.

Brand	Variety	Avg.	1/ Knox- ville	2/ Greene- ville	3/ Spring Hill	4/ Milan	4/ Martin	5/ Ames Plantation
Bushels per acre								
Deltapine	415	38	44	32	29	59	39	23
Deltapine	105	37	43	30	29	52	43	24
Coker	485	36	44	35	28	55	38	19
FFR	562	36	44	34	29	49	40	19
N.K.	S53-34	36	50	22	34	49	40	18
AgraTech	AT575	35	39	29	27	57	41	19
Pioneer	9541	35	44	31	30	47	37	23
Capehart	5636	35	49	20	30	49	40	22
Capehart	5896	35	36	31	31	54	36	19
FFR	561	34	44	25	29	47	37	23
FFR	565	34	40	29	26	49	39	22
Va.	Bay	34	44	27	33	49	31	21
Coker	425	34	41	22	34	48	36	22
Hartz	5370	34	48	22	26	48	40	19
Pioneer	5482	34	46	23	26	52	36	20
Tenn.	TN 5-85	34	45	26	28	52	34	18
Hartz	5164	34	48	30	23	51	33	18
Capehart	5646	33	44	25	26	53	33	19
Hartz	5171	33	38	35	28	50	30	19
Va.	Essex	33	36	24	35	48	35	21
Yield King	577	33	38	28	28	51	36	17
Asgrow	A5980	33	46	28	27	49	27	19
Hartz	5252	33	43	28	28	50	32	17
Coker	Co82-372	33	41	28	27	48	34	18
Asgrow	A5474	32	41	25	28	45	35	21
Funk	M82-572403	32	42	30	25	48	31	18
AgraTech	AT550	32	44	21	27	51	34	16
Coker	80R-49	32	39	24	29	49	32	19
Pioneer	9581	32	39	19	27	45	40	20
FFR	560	32	41	27	21	48	31	21
N.K.	S59-19	31	40	22	27	45	33	21
	Forrest	31	38	28	25	45	31	20
	Bedford	31	40	23	24	41	38	19
	Epps	31	41	22	23	45	35	20
Coker	355	31	41	26	22	48	32	17
Pioneer	9531	31	34	19	30	51	31	20
Tenn. Exp	83-26	28	37	20	27	41	28	18
Deltapine	675	27	39	20	24	42	24	14
L.S.D. (.05)		3.2	9.2	8.2	4.2	7.9	6.4	3.7
C.V.%		16.7	15.7	22.4	10.8	11.6	13.3	13.5
Avg.		33.1	41.8	26.0	27.7	48.9	34.8	19.6

1/Sequatchie silt loam (2% to 5% slopes).

2/Waynesboro loam (2% to 5% slopes).

3/Maury silt loam (2% to 5% slopes).

4/Collins silt loam (2% to 5% slopes).

5/Loring silt loam (2% to 5% slopes).

Table 46. Soybeans: Yield and other characteristics of varieties (Maturity Group V) evaluated at six locations in 1987.

Brand	Variety	Avg. Yield	Date		Plant Ht.	Lodging %	Flower Color	Pubes- cence Color	Date Last Flower	Date First Pod
			Full Bloom	Date Mature						
		B <sub>1</sub> /A			in.					
Deltapine	415	38	7-5	9-23	39	3	P	G	7-26	8-14
Deltapine	105	37	7-10	9-29	41	3	P	G	8-6	8-26
Coker	485	36	7-9	9-29	37	6	P	T	8-2	8-22
FFR	562	36	7-9	9-29	43	4	P	G	8-10	8-27
N.K.	S53-34	36	7-9	9-20	34	3	P	G	8-1	8-19
AgraTech	AT575	35	7-11	9-28	40	3	W	G	8-10	8-19
Pioneer	9541	35	7-8	9-15	33	2	P	G	7-22	8-11
Capehart	5636	35	7-7	9-23	38	3	W	G	8-1	8-15
Capehart	5896	35	7-9	9-28	41	2	W	G	8-10	8-23
FFR	561	34	7-4	9-25	38	2	W	G	7-24	8-11
FFR	565	34	7-6	9-24	39	4	W	T	8-6	8-17
Va.	Bay	34	7-5	9-24	38	1	P	G	7-29	8-18
Coker	425	34	7-3	9-15	32	2	P	T	7-23	8-11
Hartz	5370	34	7-9	9-28	42	3	W	T	8-5	8-26
Pioneer	5482	34	7-5	9-21	35	2	W	T	7-22	8-10
Tenn. 8-18	TN 5-85	34	7-7	9-22	39	6	W	G	7-26	
Hartz	5164	34	7-7	9-27	39	8	W	T	7-26	8-23
Capehart	5646	33	7-5	9-24	38	3	W	T	8-1	8-12
Hartz	5171	33	7-10	9-29	40	12	W	G	8-7	8-23
Va.	Essex	33	7-4	9-18	31	2	P	G	7-25	8-10
Yield King	577	33	7-8	9-27	41	11	W	G	8-9	8-23
Asgrow	A5980	33	7-7	9-23	43	11	P	T	8-3	8-23
Hartz	5252	33	7-79	9-24	38	6	P	T	7-31	8-21
Coker	Co82-372	33	7-10	9-27	45	5	W	T	8-7	8-20
Asgrow	A5474	32	7-5	9-22	40	2	W	T	7-25	8-14
Funk	M82-572403	32	7-8	9-23	37	2	W	G	8-2	8-18
AgraTech	AT550	32	7-9	9-28	44	4	P	T	8-10	8-18
Coker	80R-49	32	7-4	9-18	34	1	P	T	7-23	8-13
Pioneer	9581	32	7-5	9-25	38	4	W	T	7-29	8-21
FFR	560	32	7-5	9-29	43	12	W	T	8-10	8-25
N.K.	S59-19	31	7-7	9-21	39	7	W	T	7-26	8-18
	Forrest	31	7-7	9-26	37	4	W	T	8-3	8-19
	Bedford	31	7-10	9-26	47	10	W	T	8-7	8-21
	Epps	31	7-8	9-23	37	15	P	G	7-29	8-24
Coker	355	31	7-84	9-25	39	3	P	T	7-29	8-26
Pioneer	9531	31	7-47	9-22	37	2	P	T	7-26	8-11
Tenn. Exp	83-26	28	7-36	9-23	45	2	W	T	7-29	8-17
Deltapine	675	27	7-10	9-25	43	2	W	T	8-6	8-21

Table 47. Soybeans: Yield of varieties (Maturity Group V) evaluated at six locations for two years (1986-87).

Brand	Variety	Avg.	Knox- ville	Greene- ville	Spring Hill	Milan	Martin	Ames Plantation
Bushels per acre								
Deltapine	415	42	51	37	39	58	40	25
Coker	485	41	49	38	36	57	44	21
Deltapine	105	40	48	36	35	53	44	25
FFR	562	40	48	37	38	50	43	21
FFR	561	40	48	31	38	51	43	26
Va.	Essex	39	44	33	39	52	41	23
Coker	425	39	47	27	39	55	41	22
Pioneer	5482	38	50	31	35	51	41	23
Yield King	577	38	51	30	33	53	43	21
Hartz	5370	38	54	31	35	48	41	22
	TN 5-85	38	52	30	34	51	39	22
Hartz	5252	38	52	32	36	50	38	19
Hartz	5171	38	48	36	37	50	36	19
Pioneer	9581	37	48	29	35	48	42	22
Coker	80R-49	37	48	31	33	49	37	20
Asgrow	A5980	36	50	32	34	49	33	19
Asgrow	A5474	36	48	29	33	47	37	21
	Forrest	36	50	30	35	44	36	20
N.K.	S59-19	36	43	28	35	48	36	23
FFR	560	36	47	31	30	47	37	22
Coker	355	35	47	32	31	45	38	20
	Epps	35	45	30	30	43	38	23
	Bedford	35	44	29	30	42	41	22
Exp.	TN83-26	33	43	26	30	44	35	19
Deltapine	675	32	48	27	31	43	28	17
L.S.D. (.05)		2.2	6.5	5.2	4.2	4.9	6.0	2.7
C.V. %		15.0	13.7	16.8	12.3	10.0	15.6	13.1
Avg.		37.2	48.2	31.3	34.5	49.2	39.0	21.4

Table 48. Soybeans: Yield and other characteristics of varieties (Maturity Group V) evaluated at six locations for two years (1986-87).

Brand	Variety	Avg. Yield	Date Full Bloom	Date Last Flower	Date Mature	Plant Height	Lodging	Flower Color	Pubescence Color
		Bu/A				in.	%		
Deltapine	415	42	7-14	7-26	9-26	37	3	P	G
Coker	485	41	7-16	8-2	10-5	36	11	P	T
Deltapine	105	40	7-18	8-6	9-30	40	10	P	G
FFR	562	40	7-18	8-10	10-2	42	3	P	G
FFR	561	40	7-12	7-24	9-30	37	1	W	G
Va.	Essex	39	7-12	7-25	9-24	31	2	P	G
Coker	425	39	7-10	7-23	9-26	30	1	P	T
Pioneer	5482	38	7-13	7-22	9-28	37	5	W	T
Yield King	577	38	7-16	8-9	9-30	40	20	W	G
Hartz	5370	38	7-17	8-5	10-2	40	3	W	T
	TN 5-85	38	7-13	7-26	9-26	39	6	W	G
Hartz	5252	38	7-15	7-30	9-28	38	5	P	T
Hartz	5171	38	7-18	8-7	10-2	40	12	W	G
Pioneer	9581	37	7-13	7-29	9-29	38	7	W	T
Coker	80R-49	37	7-12	7-23	9-25	33	2	P	T
Asgrow	A5980	36	7-16	8-3	9-28	41	17	P	T
Asgrow	A5474	36	7-14	7-25	9-25	39	3	W	T
	Forrest	36	7-14	8-3	9-28	37	3	W	T
N.K.	S59-19	36	7-16	7-26	9-24	36	5	W	T
FFR	560	36	7-16	8-10	9-29	42	18	W	T
Coker	355	35	7-16	7-29	9-29	39	4	P	T
	Epps	35	7-15	7-29	9-26	37	16	P	G
	Bedford	35	7-19	8-7	9-29	44	16	W	T
Exp.	TN83-26	33	7-11	7-29	9-25	43	1	P	T
Deltapine	675	32	7-18	8-6	9-28	42	3	W	T

Table 49. Soybeans: Yield of varieties (Maturity Group V) evaluated at five locations for three years (1985-87).

Brand	Variety	Avg.	Knox- ville	Greene- ville	Spring Hill	Milan	Ames Plantation
Bushels per acre							
Coker	485	44	50	37	40	60	32
FFR	561	43	46	36	45	52	38
Deltapine	105	43	49	39	41	49	36
FFR	562	43	48	39	42	50	34
Va.	Essex	43	44	37	45	52	36
Tenn.	TN 5-85	42	50	32	40	55	34
Coker	425	42	47	33	44	54	33
Pioneer	5482	42	49	35	41	52	34
Hartz	5252	42	51	35	40	52	31
Asgrow	A5980	41	50	35	40	51	31
Hartz	5171	41	47	36	41	51	32
Hartz	5370	41	51	32	39	51	33
	Forrest	41	50	33	42	47	32
Asgrow	A5474	41	47	34	40	50	32
FFR	560	39	47	33	36	50	32
Coker	355	39	48	33	37	48	31
	Bedford	39	45	31	36	48	33
	Epps	38	46	33	33	47	32
L.S.D. (.05)		2.1	5.4	4.8	3.6	4.2	2.8
C.V. %		13.9	14.0	17.3	11.2	10.2	10.4
Avg.		41.3	48.0	34.7	40.0	51.0	33.0



Table 50. Soybeans: Yield and other characteristics of varieties (Maturity Group V) evaluated at five locations for three years (1985-87).

Brand	Variety	Avg. Yield	Date Full Bloom	Date Last Flower	Date Mature	Plant Height	Lodging	Flower Color	Pubescence Color
		Bu/A				in.	%		
Coker	485	44	7-17	8-4	10-5	36	16	P	T
FFR	561	43	7-13	7-30	9-29	36	2	W	G
Deltapine	105	43	7-18	8-6	10-1	40	14	P	G
FFR	562	43	7-18	8-9	10-2	42	6	P	G
Va.	Essex	43	7-12	7-26	9-25	31	5	P	G
Tenn.	TN 5-85	42	7-14	7-31	9-27	39	12	W	G
Coker	425	42	7-12	7-29	9-27	30	2	P	T
Pioneer	5482	42	7-13	8-1	10-1	39	11	W	T
Hartz	5252	42	7-16	8-3	9-23	38	10	P	T
Asgrow	A5980	41	7-16	8-5	9-31	42	21	P	T
Hartz	5171	41	7-18	8-7	10-2	41	13	W	G
Hartz	5370	41	7-17	8-6	10-2	40	8	W	T
	Forrest	41	7-14	8-3	9-29	38	5	W	T
Asgrow	A5474	41	7-15	7-31	9-27	39	5	W	T
FFR	560	39	7-17	8-11	10-2	43	20	W	T
Coker	355	39	7-16	8-3	10-1	38	9	P	T
	Bedford	39	7-21	8-8	10-2	45	19	W	T
	Epps	38	7-16	8-3	9-28	37	27	P	G

Table 51. Soybeans: Yield of varieties (Maturity Group VI &amp; VII) evaluated at four locations in 1987.

Brand	Variety	Avg.	1/ Knoxville	2/ Spring Hill	3/ Milan	4/ Ames Plantation
Bushels per acre						
Asgrow	A6785	41	41	31	43	50
Funk	M82-57206	41	38	36	47	42
Coker	RA 606	39	27	31	47	52
Yield King <sup>5/</sup>	593	39	28	34	45	48
Hartz	X6200	39	34	28	51	42
Yield King <sup>5/</sup>	613	39	34	31	49	41
Tide <sup>6/</sup>	Winner	38	35	27	47	42
N.K.	S69-54	37	34	27	50	39
Asgrow	A6242	37	35	28	42	44
Ga.	Twiggs	37	31	26	50	42
Hartz	7126	37	32	27	42	47
Hartz	6130	37	33	28	44	43
Coker	RA 604	37	33	27	39	48
	Sampson	36	30	29	42	44
Deltapine	726	36	32	27	47	37
N.K.	S72-60	36	37	30	40	36
Funk	M82-722611	36	32	31	41	40
AgraTech	AT 685	36	28	28	44	42
Tide <sup>6/</sup>	Rally	36	34	31	36	42
	Centennial	36	33	23	43	44
HCS	Baldwin	35	30	25	44	42
Yield King <sup>5/</sup>	696	34	26	25	45	41
Deltapine	566	34	35	27	41	32
Funk	Exp. 1409	34	30	24	44	36
Hartz	X6372 <sup>7/</sup>	34	29	24	44	37
Hartz	6385	33	33	23	44	34
Funk	G-Exp 3305	33	28	26	43	35
Coker	686	33	35	24	43	29
HyPerformer	Shiloh	33	31	23	45	32
Yield King <sup>5/</sup>	707	33	29	21	38	42
Tide <sup>6/</sup>	Victory	31	24	25	41	35
HyPerformer	Sanalona	31	23	28	41	30
Deltapine	497	30	28	21	33	38
Deltapine	417	27	23	20	32	31
L.S.D. (.05)		3.7	8.4	6.4	5.8	7.2
C.V. %		15.1	19.2	16.8	9.6	13.0
Avg.		35.4	31.3	27.1	43.2	40.0

1/Sequatchie silt loam (2% to 5% slopes).

2/Maury silt loam (2% to 5% slopes).

3/Collins silt loam (2% to 5% slopes).

4/Loring silt loam (2% to 5% slopes).

5/Terra International.

6/Tide Products Inc., Edinburg, TX.

7/Tested in previous years as X6370 or H81-1587.

Table 52. Soybeans: Yield and other characteristics of varieties (Maturity Group VI &amp; VII) evaluated at four locations in 1987.

Brand	Variety	Avg. Yield	Date Full Bloom	Date Mature	Plant Ht.	Lodging	Flower Color	Pubescence Color	Date Last Flower
		Bu/A			in.	%			
Asgrow	A6785	41	7-23	10-16	39	15	W	G	9-1
Funk	M82-57206	41	7-14	10-16	37	8	P	T	8-14
Coker	RA 606	39	7-20	10-9	42	13	W	G	8-22
Yield King <sup>1/</sup>	593	39	7-14	10-9	41	4	P	T	8-22
Hartz	X6200	39	7-10	10-1	39	9	W	T	8-12
Yield King <sup>1/</sup>	613	39	7-25	10-8	45	8	P	T	8-25
Tide <sup>2/</sup>	Winner	38	7-15	10-18	43	8	P	T	8-26
N.K.	S69-54	37	7-13	10-13	39	9	P	G	8-14
Asgrow	A6242	37	7-12	10-11	38	8	P	T	8-21
Ga.	Twiggs	37	7-10	10-1	39	0	P	T	8-14
Hartz	7126	37	7-15	10-21	44	6	P	T	8-18
Hartz	6130	37	7-11	10-12	41	4	P	T	8-26
Coker	RA 604	37	7-13	10-9	40	1	P	T	8-14
HyPerformer	Sampson	36	7-18	10-21	39	5	P	T	8-26
Deltapine	726	36	7-18	10-19	43	9	P	T	9-1
N.K.	S72-60	36	7-14	10-18	40	24	P	T	8-28
Funk	M82-722611	36	7-20	10-20	38	2	W	G	8-22
AgraTech	AT 685	36	7-22	10-12	46	18	W	T	8-30
Tide <sup>2/</sup>	Rally	36	7-20	10-22	41	5	W	T	9-1
	Centennial	36	7-17	10-21	41	4	P	T	8-23
HCS	Baldwin	35	7-18	10-22	42	5	P	T	8-26
Yield King <sup>1/</sup>	696	34	7-15	10-20	40	4	P	T	8-26
Deltapine	566	34	7-14	10-21	41	3	W	T	8-22
Funk	Exp. 1409	34	7-17	10-21	42	3	P	T	8-29
Hartz	X6372 <sup>3/</sup>	34	7-20	10-20	39	14	W	T	9-1
Hartz	6385	33	7-18	10-20	40	7	P	G	8-23
Funk	G-Exp 3305	33	7-10	10-7	41	6	W	T	8-21
Coker	686	33	7-21	10-17	42	4	P	T	8-28
HyPerformer	Shiloh	33	7-10	10-7	38	2	W	T	8-11
Yield King <sup>1/</sup>	707	33	8-2	10-22	46	20	W	T	9-1
Tide <sup>2/</sup>	Victory	31	7-10	10-6	40	2	P	T	8-18
HyPerformer	Sanalona	31	7-20	10-8	36	11	P	T	8-25
Deltapine	497	30	7-27	10-22	43	2	W	T	9-2
Deltapine	417	27	7-29	10-22	45	9	W	G	9-3

<sup>1/</sup>Terra International.

<sup>2/</sup>Tide Products Inc., Edinburg, TX.

<sup>3/</sup>Tested in previous years as X6370 or H81-1587.

Table 53. Soybeans: Yield of varieties (Maturity Group VI & VII) evaluated at four locations for two years (1986-87).

Brand	Variety	Avg.	Knox- ville	Spring Hill	Milan	Ames Plantation
Bushels per acre						
Asgrow	A6785	43	50	39	47	34
HyPerformer	Sampson	41	43	38	44	37
Yield King	593	40	45	39	44	34
Coker	606	40	38	37	47	38
Hartz	7126	40	43	33	44	37
Asgrow	A6242	40	46	32	46	35
Coker	686	40	47	33	51	27
Yield King	613	39	44	36	48	30
	Centennial	39	42	32	47	36
Deltapine	566	39	45	36	44	29
Hartz	6385	38	45	34	46	29
Yield King	696	38	42	33	44	33
HyPerformer	Shiloh	37	42	32	47	27
Yield King	707	37	41	29	41	35
Deltapine	497	35	38	29	40	31
HyPerformer	Sanalona	34	36	36	40	25
Deltapine	417	33	34	32	38	28
L.S.D. (.05)		3.8	5.7	4.8	4.6	4.7
C.V. %		14.2	13.7	14.0	10.3	14.8
Avg.		38.3	42.4	34.2	44.7	31.9

Table 54. Soybeans: Yield and other characteristics of varieties (Maturity Group VI & VII) evaluated at four locations for two years (1986-87).

Brand	Variety	Avg. Yield	Date Full Bloom	Date Last Flower	Date Mature	Plant Height	Lodging	Flower Color	Pubescence Color
		Bu/A				in.	%		
Asgrow	A6785	43	7-29	9-1	10-19	38	11	W	G
HyPerformer	Sampson	41	7-27	8-26	10-22	38	5	P	T
Yield King	593	40	7-24	8-22	10-14	40	3	P	T
Coker	606	40	7-27	8-22	10-18	41	10	W	G
Hartz	7126	40	7-26	8-18	10-23	43	5	P	T
Asgrow	A6242	40	7-23	8-21	10-13	37	7	P	T
Coker	686	40	7-28	8-28	10-20	40	3	P	T
Yield King	613	39	7-30	8-25	10-14	43	6	P	T
	Centennial	39	7-27	8-23	10-20	41	3	P	T
Deltapine	566	39	7-25	8-22	10-21	40	2	W	T
Hartz	6385	38	7-27	8-23	10-20	39	5	P	G
Yield King	696	38	7-25	8-26	10-19	39	3	P	T
HyPerformer	Shiloh	37	7-22	8-11	10-8	37	1	W	T
Yield King	707	37	8-5	9-1	10-24	47	19	W	T
Deltapine	497	35	8-2	9-2	10-23	44	3	W	T
HyPerformer	Sanalona	34	7-28	8-25	10-13	36	9	P	T
Deltapine	417	33	8-1	9-3	10-24	46	8	W	G

Table 55. Soybeans: Yield of varieties (Maturity Group VI & VII) evaluated at four locations for three years (1985-87).

Brand	Variety	Avg.	Spring			
			Knoxville	Hill	Milan	Ames Plantation
Bushels per acre						
Asgrow	A6242	43	48	38	47	40
Yield King	593	42	46	42	44	38
Hartz	7126	42	43	38	47	40
	Centennial	41	44	34	47	39
Yield King	613	40	42	39	46	34
Deltapine	566	40	44	38	45	33
	Shiloh	40	43	35	48	35
Deltapine	417	35	37	36	39	29
L.S.D. (.05)		2.2	5.2	4.2	3.6	3.0
C.V. %		13.5	14.6	13.6	9.8	10.1
Avg.		40.5	43.3	37.5	45.2	36.0

Table 56. Soybeans: Yield and other characteristics of varieties (Maturity Group VI & VII) evaluated for three years (1985-87).

Brand	Variety	Avg. Yield	Date		Plant Height	Lodging	Flower Color	Pubes- cence Color
			Full Bloom	Date Mature				
		Bu/A			in.	%		
Asgrow	A6242	43	7-22	10-12	38	9	P	T
Yield King	593	42	7-24	10-14	41	3	P	T
Hartz	7126	42	7-26	10-21	43	5	P	T
	Centennial	41	7-26	10-18	41	4	P	T
Yield King	613	40	7-31	10-14	45	7	P	T
Deltapine	566	40	7-25	10-19	40	2	W	T
	Shiloh	40	7-22	10-8	38	2	W	T
Deltapine	417	35	8-2	10-24	46	6	W	G

Table 57. Soybeans: Yield of varieties (Maturity Group IV) evaluated at five locations in 1987.

Brand	Variety	Avg.	1/ Cross- ville	2/ Knox- ville	3/ Spring- field	4/ Milan	5/ Ames Plantation
Bushels per acre							
Asgrow	A4906	41	37	39	34	56	41
Pioneer	9442	41	37	31	33	57	45
Coker	RA452	40	39	36	30	56	40
Ky.	Pennyrile	40	32	36	40	52	41
Mo.	Pershing	40	38	35	29	61	36
Pioneer	9471	38	33	29	28	56	43
Coker	393	38	36	28	34	49	42
	TN 4-86	37	26	38	29	54	40
DeKalb-Pfizer	CX 415	36	31	25	29	57	40
FFR	451	36	33	25	29	49	42
Coker	RA451	34	31	32	21	53	34
DeKalb-Pfizer	CX 380	34	29	25	28	50	38
HyPerformer	Stevens	30	19	24	29	42	35
L.S.D (.05)		3.3	6.7	8.1	7.8	7.2	6.0
C.V. %		14.0	14.5	18.3	18.0	9.5	10.6
Avg.		37.3	32.4	31.1	30.2	53.1	39.7

1/Hartsells loam (2% to 5% slopes).

2/Sequatchie silt loam (2% to 5% slopes).

3/Dickson silt loam (2% to 5% slopes).

4/Collins silt loam (2% to 5% slopes).

5/Loring silt loam (2% to 5% slopes).

Table 58. Soybeans: Yield and other characteristics of varieties (Maturity Group IV) evaluated at five locations in 1987.

Brand	Variety	Avg. Yield	Date First Flower	Date Mature	Plant Height	Flower Color	Pubescence color	Date Last Flower
		Bu/A			in.			
Asgrow	A4906	41	7-8	9-13	44	P	G	7-30
Pioneer	9442	41	6-23	9-4	31	P	T	7-24
Funk	RA452	40	7-4	9-11	42	W	G	7-29
Ky.	Pennyrile	40	6-27	9-9	40	W	T	7-26
Mo.	Pershing	40	7-3	9-16	31	W	G	7-28
Pioneer	9471	38	6-26	9-8	38	W	T	7-27
Coker	393	38	6-24	9-3	34	P	T	7-24
	TN 4-86	37	6-26	9-11	47	P	T	7-29
DeKalb-Pfizer	CX 415	36	6-24	9-2	37	W	T	7-24
FFR	451	36	6-24	9-6	36	P	T	7-25
Coker	RA451	34	6-27	9-18	43	P	T	7-28
DeKalb-Pfizer	CX 380	34	6-24	9-1	35	W	T	7-25
HyPerformer	Stevens	30	6-24	9-7	43	P	T	7-28



Table 59. Soybeans: Yield of varieties (Maturity Group IV) evaluated at five locations for two years (1986-87).

Brand	Variety	Avg.	Knox-ville	Spring-field	Cross-ville	Milan	Ames Plantation
Bushels per acre							
Coker	RA 452	40	40	26	40	58	36
Mo.	Pershing	39	37	27	38	62	32
Tenn.	TN 4-86	36	38	25	29	56	34
Pioneer	9471	36	32	22	31	57	37
Coker	RA 451	34	31	19	32	56	32
Coker	393	34	32	26	33	49	29
DeKalb-Pfizer	CX 415	33	28	25	30	54	31
DeKalb-Pfizer	CX 380	31	24	22	29	52	28
HyPerformer	Stevens	31	29	23	25	47	30
L.S.D. (.05)		2.2	4.6	5.6	4.0	5.2	5.1
C.V. %		14.5	14.0	23.1	12.6	9.4	15.8
Avg.		34.9	32.4	24.0	31.7	54.2	32.0

Table 60. Soybeans: Yield and other characteristics of varieties (Maturity Group IV) evaluated at five locations for two years (1986-87).

Brand	Variety	Avg. Yield	Date First Flower	Date Last Flower	Date Mature	Plant Height	Lodging	Flower Color	Pubes-cence Color
		Bu/A				in.	%		
Coker	RA 452	40	6-25	7-27	9-15	40	1	W	G
Mo.	Pershing	39	6-24	7-26	9-19	29	0	W	G
Tenn.	TN 4-86	36	6-20	7-27	9-12	43	1	P	T
Pioneer	9471	36	6-20	7-26	9-9	36	1	W	T
Coker	RA 451	34	6-21	7-27	9-21	42	1	P	T
Coker	393	34	6-18	7-22	9-3	31	0	P	T
DeKalb	CX 415	33	6-18	7-23	9-3	35	1	W	T
DeKalb	CX 380	31	6-17	7-22	8-31	33	0	W	T
HyPer <sup>1/</sup>	Stevens	31	6-19	7-26	9-10	41	0	P	G

<sup>1/</sup>HyPerformer.

Table 61. Soybeans: Yield of varieties (Maturity Group IV) evaluated at five locations for three years (1985-87).

Brand	Variety	Avg.	Knox- ville	Cross- ville	Spring- field	Milan	Ames Plantation
Bushels per acre							
Mo.	Pershing	42	44	40	35	59	35
Coker	RA 452	42	45	42	37	50	38
Pioneer	9471	40	39	34	34	56	38
	TN 4-86	39	44	30	34	56	33
Coker	RA 451	39	39	36	30	54	34
HyPerformer	Stevens	35	35	29	32	49	32
L.S.D. (.05)		2.3	3.6	3.3	4.0	5.0	5.4
C.V. %		14.4	10.8	11.4	14.4	11.2	19.0
Avg.		39.8	40.8	35.1	33.7	54.0	35.0

Table 62. Soybeans: Yield and other characteristics of varieties (Maturity Group IV) evaluated at five locations for three years (1985-87).

Brand	Variety	Avg. Yield	Date Full Bloom	Date Last Flower	Date Mature	Plant Ht.	Lodging	Flower Color	Pubes- cence Color
		Bu/A				in.	%		
Mo.	Pershing	42	6-25	7-26	9-20	30	0	1	1
Coker	RA 452	42	6-26	7-28	9-18	40	3	1	1
Pioneer	9471	40	6-18	7-26	9-10	37	6	1	2
	TN 4-86	39	6-18	7-26	9-13	43	4	2	2
Coker	RA 451	39	6-19	7-26	9-23	42	10	2	2
HyPerformer	Stevens	35	6-18	7-25	9-11	42	13	2	1

Table 63. Soybeans: Yield and other characteristics of strains (Maturity Group V) evaluated at Jackson in 1987.

Brand	Variety	Avg. Yield	1/	2/	Plant Height	Lodging	3/	4/
			Date Full Bloom	Date Mature			Flower Color	Pubescence Color
		Bu/A	Days	Days	in.	%		
Esco	B22	38	112	185	41	16	2	2
Asgrow	A5474	35	116	188	43	16	1	2
Esco	B16	34	112	194	36	6	2	1
Esco	B52	32	126	198	46	20	1	1
Esco	594-175	31	121	187	45	17	1	2
Esco	B8	30	119	198	45	32	2	1
Capehart	6836	30	126	210	43	8	2	1
Tenn.	TN85-55	29	116	185	41	5	2	2
Esco	B24	29	116	189	41	6	2	2
Esco	B11	28	116	186	37	6	2	1
Esco	B21	28	116	188	40	17	2	2
Esco	B23	27	116	191	41	13	2	1
Tenn.	TN85-121	27	120	189	44	26	2	1
	Essex	26	109	179	32	10	2	1
	Forrest	26	116	186	38	8	1	2
Capehart	7636	25	134	214	44	11	1	2
Esco	B48	19	128	198	47	32	1	2
L.S.D. (.05)		6.5						
C.V. %		15.7						
Avg.		29.1						

1/ Number of days from April 1 until Full flower.

2/ Number of days from April 1 until Mature.

3/ 1 = White flowers and 2 = Purple flowers.

4/ 1 = Grey Pubescence and 2 = Tawny Pubescence in color.

Table 64. Soybean: Yield and other characteristics of strains (Maturity Group VI and VII) evaluated at Jackson in 1987.

Brand	Variety	Avg. Yield	1/ Date Full Bloom	2/ Date Mature	Plant Height	Lodging	3/ Flower Color	4/ Pubescence Color
		Bu/A	Days	Days	In.	%		
Yield King	699	39	119	198	48	7.5	1	1
Esco	65-73	37	119	191	49	27.5	1	2
TerraVig	515	36	119	199	39	16.2	2	2
	Centennial	36	126	202	47	22.5	2	2
TerraVig	553	35	119	198	40	1.7	1	2
TerraVig	616	35	134	201	46	35.0	2	1
	Lee 74	34	126	198	39	47.5	2	2
Y.K.	ES6-87-B2J	34	119	198	44	13.0	2	2
Coker	C-82-824	32	119	191	41	9.5	1	2
Esco	65-62	31	126	198	47	35.0	2	2
	Spartan	29	134	204	46	27.5	2	2
Deltapine	1017	27	126	198	45	20.0	1	2
L.S.D. (.05)		5.4						
C.V. %		11.1						
Avg.		33.8						

1/ Number of days from April 1 until Full flower.

2/ Number of days from April 1 until Mature.

3/ 1 = White flowers and 2 = Purple flowers.

4/ 1 = Grey Pubescence and 2 = Tawny Pubescence in color.

Table 65. Soybeans: Yield and other characteristics of strains (Maturity Group IV) evaluated at Jackson in 1987.

Brand	Variety	Avg. Yield	1/ Date Full Bloom	2/ Date Mature	Plant Height	Lodging	3/ Flower Color	4/ Pubescence Color
		Bu/A			in.	%		
Exp.	TN85-32	38	106	188	43	3.8	1	2
Mo.	Pershing	32	112	185	34	3.5	1	1
Exp.	TN85-48	32	110	178	32	6.5	2	2
Exp.	TN85-13	26	110	180	35	15.0	3	1
Exp.	TN85-117	25	116	185	42	4.0	1	1
Exp.	TN83-58	24	106	173	45	11.7	1	1
Pioneer	9471	24	106	173	36	7.5	1	2
Exp.	TN 4-86	21	106	173	47	13.0	2	2
L.S.D. (.05)		5.2						
C.V. %		12.8						
Avg.		27.8						

1/Number of days from April 1 until Full flower.

2/Number of days from April 1 until Maturity.

3/ 1 = White flowers and 2 = Purple flowers.

4/ 1 = Grey pubescence and 2 = Tawny Pubescence in color.

Table 66. Soybeans: Soybean Cyst Nematode ratings made by Lawrence D. Young on Maturity Group V varieties grown in the greenhouse at Jackson during the summer of 1987.

Brand	Variety	Soybean Cyst Nematode Race		Brand	Variety	Soybean Cyst Nematode Race	
		3	4			3	4
		Mean Severity Index <sup>1</sup> (0-4)				Mean Severity Index <sup>1</sup> (0-4)	
	Forrest	0.7	4.0	FFR	565	0.5	2.1
	Essex	4.0	4.0	FFR	560	0.3	0.7
	Bedford	0.3	0.8	FFR	561	4.0	4.0
	Bay	4.0	4.0	FFR	562	4.0	3.6
Asgrow	A5474	0.8	2.3	Hartz	5171	0.1	4.0
Asgrow	A5980	0.7	3.6	Hartz	5370	0.2	3.8
AgraTech	AT575	4.0	4.0	Hartz	5252	0.2	4.0
AgraTech	550	0.5	1.8	Hartz	5164	1.0	1.2
Coker	355	0.6	2.0	Funk	M82-572403	0.1	4.0
Coker	485	0.25	4.0	N.K.	S59-19	1.2	1.6
Coker	425	4.0	3.8	N.K.	S53-34	4.0	4.0
Coker	80R-49	1.8	4.0	Pioneer	5482	4.0	4.0
Coker	Co82-372	0.6	2.7	Pioneer	9581	0.25	1.5
Capehart	5646	0.6	2.8	Pioneer	9541	4.0	4.0
Capehart	5636	4.0	4.0	Pioneer	9531	0.75	2.0
Capehart	5896	4.0	4.0	Exp.	TN 5-85	0.1	3.8
Deltapine	105	4.0	4.0	Exp.	TN83-26	0.8	2.8
Deltapine	675	0.4	1.0	Yld. King	577	0.57	4.0
Deltapine	415	0.6	3.8		Shenandoah	4.0	4.0
	Epps	0.5	1.6				

<sup>1</sup>The mean severity index is the sum of the values obtained by multiplying the rating times the number of plants with that rating, divided by the total number of plants. Rating was based on a scale of 0 through 4 with four being the most susceptible. A rating above 3 should be classified as susceptible.

Table 67. Soybeans: Soybean Cyst Nematode ratings made by Lawrence D. Young on Maturity Group VI & VII varieties grown in the greenhouse at Jackson during the summer of 1987.

Brand	Variety	Soybean Cyst Nematode Race		Brand	Variety	Soybean Cyst Nematode Race	
		3	4			3	4
Mean Severity Index <sup>1</sup> (0-4)				Mean Severity Index <sup>1</sup> (0-4)			
	Centennial	0.8	4.0	Y.K. <sup>3</sup>	707	0.7	2.8
Coker	RA606	2.0	4.0	N.K.	S72-60	4.0	4.0
Coker	RA604	0.6	4.0	N.K.	S69-54	0.0	4.0
Coker	686	0.4	4.0	Funk	G-Exp 3305	4.0	4.0
Deltapine	566	4.0	3.8	Funk	G-M82-722611	4.0	4.0
Deltapine	497	4.0	4.0	Funk	G-1409	4.0	4.0
Deltapine	726	0.4	4.0	Funk	G-M82-57206	4.0	4.0
Asgrow	A6242	0.6	2.7	AgraTech	AT685	0.8	3.0
Asgrow	A6785	4.0	4.0	HP <sup>4</sup>	Sanalona	4.0	4.0
Hartz	7126	0.3	4.0	HP <sup>4</sup>	HSC Baldwin	0.1	4.0
Hartz	6385	0.3	4.0	Ga	Twiggs	0.0	4.0
Hartz	X6372	0.8	3.8	T.P. <sup>5</sup>	Victory	4.0	4.0
Hartz	625	0.6	2.6	T.P. <sup>5</sup>	Rally	4.0	4.0
Y.K. <sup>3</sup>	613	1.0	3.8	T.P. <sup>5</sup>	Winner	0.1	4.0
Y.K. <sup>3</sup>	593	0.4	4.0	HP <sup>3</sup>	Sampson	4.0	4.0
Y.K. <sup>3</sup>	696	0.4	4.0				

<sup>1</sup>The mean severity index is the sum of the values obtained by multiplying the rating times the number of plants with that rating, divided by the total number of plants. Rating was based on a scale of 0 through 4 with four being the most susceptible. A rating above 3 should be classified as susceptible.

<sup>2</sup>Deltapine 417, Shiloh, and Hartz Z6200 were not screened for Soybean Cyst Nematodes because seed samples were not included for some unknown reason.

<sup>3</sup>Yield King.

<sup>4</sup>HyPerformer Seed Co.

<sup>5</sup>Tide Products.

Table 68. Soybeans: Soybean Cyst Nematode ratings made by Lawrence D. Young on Maturity Group IV or less varieties grown in the greenhouse at Jackson during the summer of 1987.

Brand	Variety	Soybean Cyst Nematode Race	
		3	4
		Mean Severity Index <sup>1</sup> (0-4)	
Coker	RA452	4.0	4.0
Coker	RA451	4.0	4.0
Coker	393	4.0	4.0
HyPerformer	Stevens	4.0	4.0
Mo	Pershing	4.0	4.0
Asgrow	A4906	4.0	4.0
Ky	Pennyrile	4.0	4.0
FTR	451	4.0	4.0
Pioneer	9442	4.0	4.0
Pioneer	9471	4.0	4.0
DeKalb-Pfizer	CX380	4.0	4.0
DeKalb-Pfizer	CX415	4.0	4.0
Exp.	TN 4-86	0.6	3.2

<sup>1</sup>The mean severity index is the sum of the values obtained by multiplying the rating times the number of plants with that rating, divided by the total number of plants. Rating was based on a scale of 0 through 4 with four being the most susceptible. A rating above 3 should be classified as susceptible.



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E11-0415-00-009-88

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